



WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

April 19 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, suite 1210
Salt Lake City, UT 84114-5801

RE: Application for Permit to Drill
Wolverine Federal 17-6
Covenant Field, Sevier County, UT

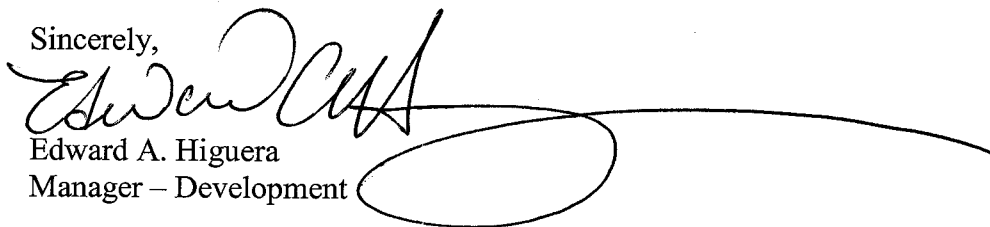
Dear Ms. Whitney:

Based on the results from the recent drilling at the Covenant Field, we are now proposing to add one additional well from the current pad drilling, which we have named the Wolverine Federal 17-6. This well will be drilling from the same pad location as the Wolverine Federal 17-3, 17-4, 17-5 and the 8-1. Because this well is a recent addition to the same pad as the previous four wells, we are hoping that this application can be approved a timely manner. Because we are drilling these wells from the same pad, it is important for us to be able to continue from one well to the next, before rigging down and moving to another pad. A delay would be very costly.

Diana, as you know, we like to handle our work in an orderly fashion, and to give you sufficient time to review the permit. However, there are times, when circumstances do not always allow us to do that, especially given these drilling conditions. Therefore, let me state in advance, I would greatly appreciate any help in getting this permit approved before we finish the current well, which we anticipate finishing within 30 days.

If you have any questions, please call me at 616.458-1150 (ext. 129) or email me at ehiguera@wolvgas.com. Thank you again.

Sincerely,



Edward A. Higuera
Manager – Development

Encl: Application for Permit to Drill

RECEIVED

APR 20 2005

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL				5. MINERAL LEASE NO: private	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: <i>Wolverine</i>	
2. NAME OF OPERATOR: Wolverine Gas & Oil Company of Utah, LLC				9. WELL NAME and NUMBER: Wolverine Federal #17-6	
3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503-2616				10. FIELD AND POOL, OR WILDCAT: Covenant	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1680' FNL & 2217 FWL Sec. 17 T23S-R01W AT PROPOSED PRODUCING ZONE: 660' FNL & 1925' FWL Sec. 17 T23S-R01W <i>NENW</i>				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <i>SE</i> <i>NENW</i> 17 23S 01W	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 3.5 miles south of Sigurd				12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 500' west		16. NUMBER OF ACRES IN LEASE: 160		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 16' SHL; approx. 1500' at BHL		19. PROPOSED DEPTH: 6,770		20. BOND DESCRIPTION: BLM WY #3229	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5753' KB		22. APPROXIMATE DATE WORK WILL START: 5/18/2005		23. ESTIMATED DURATION: 35 days	

24. PROPOSED CASING AND CEMENTING PROGRAM						
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT	
30"	20	X42	.25" wall	120	conductor	
17-1/2"	13-3/8"	J55	68 ppf	2,000	Lead: 500 sx hi-fill	3.86 cf/sx 11.0 ppg
					Tail: 450 sx Prem. G	1.18 cf/sx 15.8 ppg
12-1/4"	9-5/8"	N80	47 ppf	6,000	450 sx 50:50 Poz	1.71 cf/sx 13 ppg
8-1/2"	7"	N80	26 ppf	6,770	400 sx 50:50 Poz	1.27 cf/sx 14.35 ppg

25. ATTACHMENTS	
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:	
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Edward A. Higuera TITLE Manager-Development
SIGNATURE *Edward A. Higuera* DATE 4/16/2005

(This space for State use only)

API NUMBER ASSIGNED: 43-041-30040

APPROVAL: 38.805536 38.808340
-111.933327 -111.934506

(11/2001)

(See Instructions on Reverse Side)

RECEIVED
APR 20 2005
DIV. OF OIL, GAS & MINING

PROJECT PLAN OF DEVELOPMENT AND MASTER SURFACE USE PLAN

Kings Meadow Ranches #17-6

NAME OF APPLICANT: Wolverine Gas and Oil Company of Utah, LLC
One Riverfront Plaza, 55 Campau NW
Grand Rapids, Michigan 49503-2616

PROJECT NAME: "Wolverine Federal #17-6"
NE/NW of Section 17
Township 23 South – Range 1 West

ATTACHMENTS: A.) Project Map/Survey
B.) Well Site Location Layout
C.) Typical Cross Sections (Cut and Fill)
D.) Wildlife & Vegetative Species of
Concern Summary
E.) Cultural Resource Survey Report

I. DESCRIPTION OF PROJECT:

Wolverine Gas and Oil Company of Utah, LLC (Wolverine) proposes to drill and explore for hydrocarbons, using a directional drilling program, from the Navajo Formation at depths of approximately 6600 TVD within the Wolverine Federal Exploration Unit situated in Sevier County, Utah:

TOWNSHIP 23 SOUTH, RANGE 1 WEST

Northeast Quarter of Northwest Quarter (NE/NW) of Section 17

*Project Plan of Development & Surface Use Plan
Wolverine Gas & Oil Company of Utah, LLC
Kings Meadow Ranches #17-6*

Well Name & No. Target Elev. Location TD Footages

LEASE # UTU-73528					
Kings Meadow Ranches #17-6	Navajo	5,753' kb	NE NW Sec 17, T23S-R1W	6,770'	1,680' FNL; 2,217' FWL

The attached Project Map (Attachment A) indicates the proposed well site and its intended configuration. Additionally, the existing access route is indicated. This well is being drilled within the "Wolverine Federal Exploration Unit" and upon privately owned surface.

Mineral rights within the Wolverine Federal Exploration Unit are owned by a variety of interests and are federally owned at the target bottom-hole location for this proposed well. The proposed surface plan will be reviewed and inspected by the appropriate regulatory agencies, state and federal, to ensure proper utilization of the surface reflecting an effort by Wolverine to minimize surface disturbance and waste. Appropriate Onshore Oil and Gas Orders and those of the Utah Division of Oil, Gas and Mining will be followed in the constructing, drilling, completion, operation, plugging and surface reclamation of this well.

The project is situated within an area that is referred to by the Utah Division of Oil, Gas and Mining (Statement of Basis, Kings Meadow Ranches 17-1, October 21, 2003) as "... placed in the High Plateaus section of the Colorado Plateau physiographic province in western central Utah. Some people have characterized this area as being in the Basin and Range – Colorado Plateau transition zone." The drill site itself is located in a flat area between steep hills and is contiguous to Highway 24 from which access to this site will be established. The flat area is dominated by sagebrush – grass communities and the nearby hillsides are dominated by Pinyon Pine – Juniper communities. The access route consists of an improved driveway off from Highway 24 entering onto the well site. BLM road construction standards will be adhered to as new improvements are constructed.

Wolverine's proposed "KMR #17-6" project is most easily accessible from Sigurd, Utah. From Sigurd, one would drive down Highway 24 heading east/southeasterly. At mile marker 13, drive approximately 0.6 miles and turn easterly onto the existing access road driving approximately 200 yards to the proposed well pad location.

Surface water is located in the area primarily in the form of the Sevier River, in the Peterson Creek drainage, a tributary of Brine Creek. Local springs arising from the volcanic rocks and ephemeral drainages also exist in the area including a drainage way situated along Highway 24. The Sevier River is approximately three (3) miles west of this proposed location.

Geology and Soil Types

Again quoting from the "Division of Oil, Gas and Mining, Statement of Basis, Kings Meadow Ranches 17-1", the well "...will likely spud into a thin alluvium covering the

evaporate-rich Jurassic age Arapien shale.” “The Arapien Shale may have been somewhat intruded or elevated into the area between the Sevier Fault and the considerable parallel secondary faulting mapped in the Cedar Mountain – Black Mountain area...” It is anticipated that from surface to approximately 400 feet in depth, the lithology of the Quaternary will consist of unconsolidated sediments.

The soil type classified at the KMR #17-6 wellsite is the Billings silty clay loam. This soil type is a fine-silty, mixed calcareous, mesic Typic Torrifluvents and is usually found in areas containing two (2) to five (5) percent slopes. The soil is a deep, drained, silty clay loam. It features a light gray, moderately alkaline, strongly calcareous, silty clay loam surface soil that is approximately ten (10) inches thick. The subsoils consist of a light gray, moderately alkaline, friable, silty clay loam approximately 32 inches thick. The substrate material is a light gray, moderately alkaline, friable, silty clay loam with a small amount of gypsum veining.

Assuming that the drilling and completion of this well result in its ability to commercially produce hydrocarbons, appropriate market connections will be made upon proper permitting of such activities by all agencies having jurisdiction over said activities.

II. SOIL EROSION CONTROL MEASURES:

The well pad will be sloped at about 1%, in the direction of the site’s drainage so as to provide for a well-drained work area during drilling operations. Appropriate collection and infiltration basins will be constructed in the sloped area of the drill pad.

In all fill areas, the edges shall be diked to control run off.

Appropriate drill site drainage and sedimentation control measures will be incorporated in the operational plan. These may include utilization of earthen dikes along the fill portion of the drilling pad perimeter, stabilization of slopes as needed, location of the reserve pits in the cut portion of the drilling pad and the pad constructed so as to slope toward a collection and infiltration basin. Construction of the drill site shall be in accordance with the regulations and stipulations as defined by the State of Utah, Department of Natural Resources, Division of Water Rights.

Reclamation of the site will be in accordance with Best Management Practices and requirements of the Bureau of Land Management.

III. EXISTING ACCESS ROADS AND ROAD IMPROVEMENTS

The existing access road is identified and labeled on the project map. Steep, rough topography is not identified as a problem along our access route which was constructed by initially using fill material and covering it with approximately eight (8) inches of

shale/gravel. Another layer of road base material, approximately four (4) inches in depth, was placed on top of the shale/gravel.

IV. LOCATION OF EXISTING WELLS

The recently drilled "King Meadow Ranches 17-1" well is situated approximately 200 yards southwesterly of this proposed surface site location and is situated in the Southeast Quarter of the Northwest Quarter (SE/NW), "Wolverine Federal #17-3" Northwest Quarter of Southwest Quarter (NW/SW), "Wolverine Federal #17-4" Northwest Quarter of Southeast Quarter (NW/SE) and the "Wolverine Federal #17-5" Southeast Quarter of Northeast Quarter (SE/NE) of Section 17, Township 23 South, Range 1 West, Sevier County, Utah. "Wolverine Federal 17-2" is located approximately one-half mile southerly of this proposed well site and is situated in the Southeast Quarter of the Southwest Quarter (SE/SW) of Section 17, Township 23 South, Range 1 West, Sevier County, Utah.

V. DRILLING METHOD

Wolverine proposes to use a directional drilling program for the KMR #17-6. The mountainous terrain of the area is such that directional drilling is the most efficient method to minimize surface disturbance. By locating the well pad on a relatively flat surface, and drilling a directional well beneath this challenging topography, Wolverine can most effectively minimize surface disturbance and ensure proper utilization of resources.

VI. LOCATION AND TYPE OF WATER SUPPLY

Water for drilling the KMR #17-6 will be purchased from water wells nearby or drilled on location and pumped into storage tanks at the site. Water for drilling from nearby well(s) will be hauled to location and stored in storage tanks on the drill site. Wastewater will not be discharged on the surface at this site and the drilling of the well will not require a wastewater management plan.

VII. CONSTRUCTION MATERIALS

In most circumstances, natural earth materials were used for the construction of roads and fills. These were taken from locations essentially contiguous to or nearby the locations to be improved. When necessary, road base materials were used and delivered by the contractor for application on site and specifically as the initial fill material for the access road, which was then covered with approximately eight (8) inches of shale/gravel.

VIII. METHODS FOR HANDLING WASTE

The Reserve Pit will be dug on the well pad per the attached Well Site Location Layout (Attachment B). It will be used for the disposal of waste mud and drill cuttings and will be located on the south portion of the well site plan. The pit will be 100 feet X 240 feet and will be 10 feet deep. The pit will be lined with a synthetic liner having a minimum thickness of 12 mills and if the reserve pit is built in rock, geotextile or some other material approved by the Division of Oil, Gas and Mining shall be utilized. The Division of Oil, Gas and Mining shall be notified prior to lining the reserve pit in order to allow for Division inspection. Rules pursuant to R649-3-16 will be followed regarding the reserve pit as well as those governing Onshore Oil and Gas Operations (43 CFR 3160.)

Upon evaporation of fluids, pit closure occurs with the back fill of soil and its compaction to prevent settling. The usage of the pit is further described in the section VIII under pit closure.

All garbage will be taken off site and disposed of properly. Pursuant to R649-3-14, all rubbish and debris shall be kept in containers on the well site, and will be hauled to an approved disposal site upon completion of drilling and completion operations and as needed during such operations. There will be no chemical disposal of any type. Sewage is handled through the renting of portable toilets. These are serviced by the rental company and removed from site when no longer required.

IX. PLANS FOR RECLAMATION OF THE SURFACE

Pit closure: The pits will be fenced on three sides during all drilling operations and then the fourth side will be immediately fenced when the rig is moved off location. After evaporation of fluids, back-fill of sub-soil and compaction to prevent settling will occur within 90 days of the drilling and completing of the well. If necessary after 90 days, the fluids will be sucked out of the pit and transported off site.

The topsoil will be stripped off and stock piled in an area not to be disturbed. The topsoil will be placed back on the pit after back filling and then prepped for re-seeding.

The approximate Pit size is indicated on the Well Site Location Layout diagram attached hereto (Attachment B).

Revegetation Methods: Disturbed areas will be disked, seeded and “dragged”, as needed; seeding with a mixture approved by the local USDA Natural Resource Conservation Service or the Bureau of Land Management.

Wolverine generally requires at least twelve (12) pounds per acre of seed distribution. Wolverine suggests that autumn seeding practices be used due to the terrain in this project area. Spring rain events are common and tend to cause severe run-off. Fall seeding will allow any moisture, whether rain or snow, to assist the seed into the ground.

Other Practices: Other practices that will be utilized to reclaim disturbed areas will include riprap when and if necessary to prevent erosion and the installation of silt fencing in sensitive and/or erosive areas.

Timetable: Reclamation of the surface will commence as soon thereafter construction, drilling and well completion are concluded, as is practicable, depending on weather. In the event of a dry hole, the drill site and roadways will be restored to their original condition as nearly as practicable within 180 days after plugging date of the well.

X. SURFACE OWNERSHIP

The surface of the proposed well site is privately owned by Wolverine Gas & Oil Corporation. The contact person for Wolverine Gas & Oil is Edward A. Higuera, Manager-Development, who can be reached at 55 Campau NW, Grand Rapids, MI 49503. Phone: 616.458-1150 (ext. 129). Fax: 616.458-0869.

XI. WELLSITE LAYOUT

Please see the attached “Well Site Location Layout” (Attachment B) for the well configurations.

XII. PIPELINES AND STREAM CROSSINGS

PIPELINES: In the event of hydrocarbon production requiring transmission by pipeline, the proposed pipeline(s) will be designed, constructed, tested, operated and maintained in accordance with standard safety practices and by a combination of construction techniques intended to minimize to the greatest extent practical the impacts upon natural resources.

Pipelines will typically be installed by trenching. In these trenched areas, the contractor shall strip and stockpile topsoil to be replaced over the backfill portion upon completion of construction operations. Silt fencing will be installed at all stream crossings.

The proposed pipelines will be constructed with a combination of methods intended to minimize impacts to private, state and federally owned property, county roads and natural resources. The pipeline will be constructed by a combination of conventional construction techniques and special measures designed to minimize impacts to natural resources. Pipelines will be adequately compacted before the topsoil is replaced for re-seeding.

In general and where required, soil erosion control measures will consist of appropriate BMPs (Best Management Practices) to reduce the potential for erosion. The BMPs that will be utilized in upland areas include use of construction barriers where appropriate, land clearing, spoil piles, staging and scheduling, seeding and mulching. Note that spoil piles will not typically be seeded since exposure of the spoil piles should be minimal in time. All other proper BMP measures will be implemented to reduce the potential for erosion. Seeding of all raw soils after burial of pipe will be performed. However, mulching will be performed only within state or county road right-of-ways.

Generally speaking, in wetlands, appropriate BMPs will be implemented to minimize the potential for soil erosion within wetland construction zones. These measures shall include, but not be limited to, clearing, barriers, staging, filters, silt fencing, spoil piles, dewatering, seeding, and mulching.

XIII. GENERAL

TIMELINE: The following is a general order of construction and sequence of earth change by which our operations will proceed:

- 1.) Access Road and Well Pad Construction
- 2.) Drilling and Well Completion Operations
- 3.) Initial Well Pad Restoration
- 4.) Clearing of Pipeline Rights-of-way (if needed)
- 5.) Delivery and Layout of Pipe
- 6.) Pipe Welding and Inspection
- 7.) Trenching of Pipe
- 8.) Placement and Burying of Pipe

- 9.) Final Restoration of Site/Access/Pipeline Route
- 10.) Re-Seeding

All hillsides, creek banks, and other places where contractor has moved earth to facilitate operations shall be restored to as near original condition as practical. Replaced material and/or backfill will be protected from erosion to the satisfaction of Wolverine, the Bureau of Land Management and the Utah Division of Oil, Gas and Mining without undue delay.

Upon completion of any backfill, contractor shall clear pipeline rights-of-way and access routes of large rocks, stumps and other debris; fill holes, ruts and depressions, and shall keep the access road in a neat and acceptable condition. All cleanup shall be maintained by the contractor until final acceptance by Wolverine and the enforcing agency.

XIV. ENVIRONMENTAL IMPACT ASSESSMENT:

It is anticipated that the drilling and operations planned, provided the success of this well, will not have any adverse affects to any wildlife or aquatic life in the area. There will be only a minor effect on the surface cover. Drilling and production operations should have minimal effect on the population patterns, land use, public utilities or public services in the near future for this rural area.

Noise levels during drilling and completion operations may be continuous but not unusually high. If production is achieved, noise levels should be minimal during the operation and maintenance of the wells.

Necessary soil erosion and sedimentation safeguards will be built into the well pad, access and future proposed pipeline routes to protect any nearby lowlands, where appropriate. Particular care will be exercised in order that all drain ditches be maintained and kept unobstructed to prevent water backup against spoil banks or backfill, causing erosion. The cumulative long-term effect on the immediate environment should be minimal.

If the well is productive, the effect on the air quality in the area is expected to be practically non-existent. Human activity in this area is somewhat limited, due to the nature of the location. Ranching operations and any activities in the area should not be adversely affected.

The site will then be contoured as closely as practical to its natural state, fine graded and stabilized. The well site and access route will be restored as soon as practical. If a well is productive, existing dikes will be maintained and erosion control procedures, as specified and required by the Bureau of Land Management, will be followed to insure protection of the local ecosystem.

Cultural

Please see, "Attachment E", Cultural Resource of A Well Pad (A-2) Near Sigurd, Sevier County, Utah.

Wildlife

Please see "Attachment D", a summary of Wildlife and Vegetative Species of Concern.

XV. SUMMARY:

In conclusion, the environmental impact of this project is considered to be minimal and every effort will be made to ensure the protection and preservation of the environment, as well as the standard of living for those affected by its operation.

This proposed project is aimed at increasing the hydrocarbon reserves within the State of Utah. In addition, in the event that production can be established in this project, it will be of financial benefit to the private holders of oil and gas rights within the "Wolverine Federal Exploration Unit", including the Bureau of Land Management in fulfillment of its stewardship responsibilities over federally owned oil and gas assets. We consider the environmental impact of this project to be slight and we will make every effort to be conscientious operators and to insure protection and preservation of the environment during the course of our drilling and producing operations.

Sincerely,

Wolverine Gas and Oil Company of Utah, LLC

By: 

Ed Higuera

Manager - Development

Authorized Permitting Agent:

Western Land Services – Western Division

54 West Seymour Street

Sheridan, WY 82801

Donald L. Anderson, Chief Operating Officer, Phone: 307-673-1817

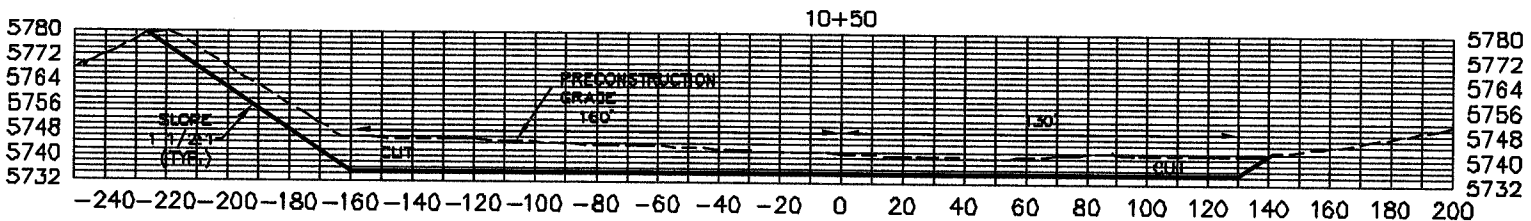
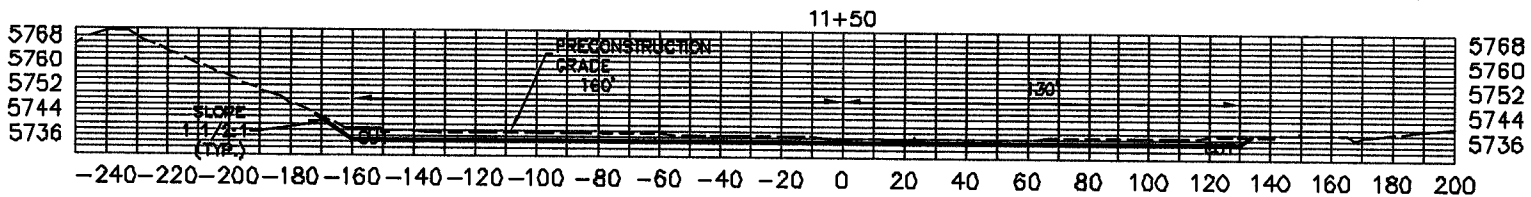
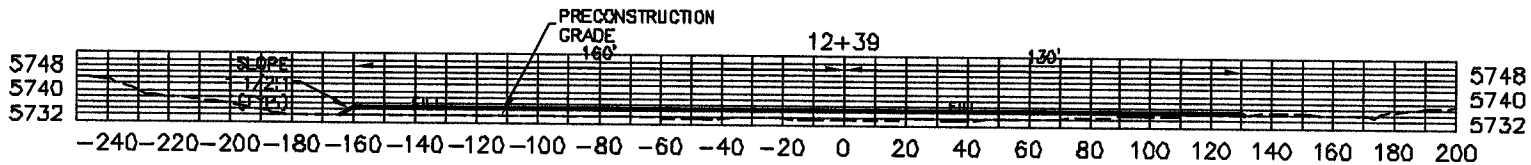
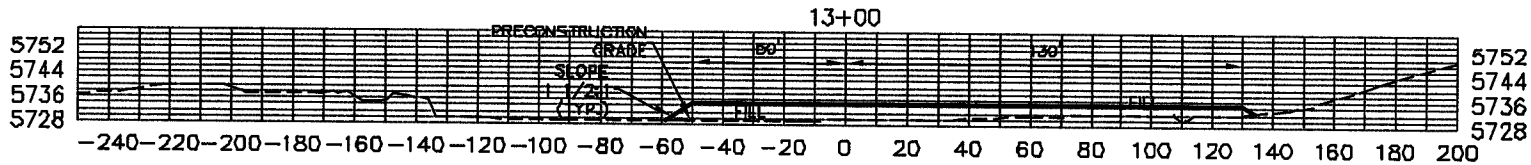
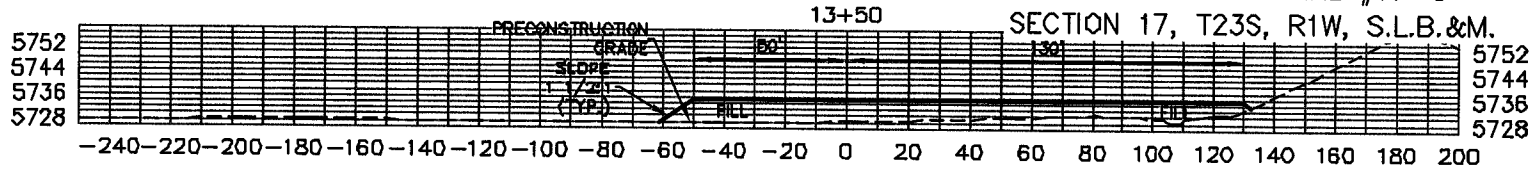
Local Contact: Shawn Burd, Phone: 435-896-1943

WOLVERINE GAS & OIL COMPANY OF UTAH, LLC.

TYPICAL CROSS SECTIONS FOR

WOLVERINE FEDERAL #17-6

SECTION 17, T23S, R1W, S.L.B.&M.



Jones & DeMille Engineering

1535 South 100 West -- Richfield, Utah 84701

Phone (435) 896-8266

Fax (435) 896-8268

www.jonesanddemille.com

Typical Cross Sections for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED T.W.G.	CHECKED R.W.S.	DRAWN T.R.G.	PROJECT NO.	SHEET NO.
DATE Apr. 2005		DRAWN Wells	SCALE 1" = 80'	0407-139	FIGURE 5A

Wolverine Federal #17-6

The Wolverine Federal #17-6 wellsite is located approximately 4.2 miles southeast of the town of Sigurd in Township 23 South - Range 1 West, Section 17: Northeast Quarter of the Northwest Quarter (NE/NW) Salt Lake Base and Meridian in Sevier County, Utah.

The proposed Wolverine Federal #17-6 is situated adjacent to Highway 24 in a gentle rolling plains with hilly terrain on the west side. Plant habitat types within the area consist of a combination of Pinyon Pine– Juniper, located on the hillsides, and sagebrush – grass communities in the less gradient areas.

THE PROPOSED ACTIONS

The proposed depth is 6,770 feet for the Wolverine Federal #17-6 well. The well pad dimensions will be approximately 360' x 360' (including reserve pit). The access road will be constructed by initially using fill material and covering it with approximately 8 inches of shale/gravel. Another layer of road base material, approximately 4 inches in depth, will be placed on top of the shale/gravel.

WILDLIFE AND VEGETATIVE SPECIES OF CONCERN

Potential effects concerning federally endangered, threatened, proposed, candidate, sensitive, and management indicator wildlife and vegetative species will be evaluated in the proposed area of disturbance before any surface disturbing activities occur. It is understood that these activities and the proposed location will be evaluated by a BLM staff or approved biologist. A habitat analysis will be completed to evaluate which species may occur in the area. Surface use guidelines will be followed as will surface use restrictions and time limit stipulations in the area of concern for all affected species.

It is understood that the Wolverine Federal #17-6 wellsite is situated within a designated critical deer wintering range. Proposed activities are not anticipated to occur during any such wintering range seasonal restrictions. There is also the possibility that small clumps of Penstemon plants may be located within this project area. Wolverine Gas and Oil Company of Utah, LLC will take all necessary steps to protect the species of concern and as stipulated by the Bureau of Land Management.

CONFIDENTIAL

Cultural Resource Inventory of A Well Pad (A-2) Near Sigurd, Sevier County, Utah



Jason Bright
Mountain States Archaeology, LLC
7190 South State Street
Midvale, Utah 84047

Project Number U-04-MV-0646p
BLM Permit UT0480011

Cultural Resources Report UT0421

July 13, 2004

Cultural Resource Inventory of A Well Pad (A-2) Near Sigurd, Sevier County, Utah

Project Description

In July 2004, Western Land Services contracted Mountain States Archaeology to perform Class III cultural resource inventory of a small well pad and access route in Sevier County, Utah on behalf of Wolverine Oil and Gas.

The well pad and access route are located in Township 23 South Range 1 West, NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 17 (Figure 1). A records search was performed for this area on March 2, 2004 at Utah SHPO. Craig Harmon at the Richfield BLM office forwarded records search information for a nearby project (Bright 2004a) on March 26th, 2004. Fieldwork was completed July 12th 2004.

Records Search

A number of previously completed projects were found within a mile of the current project locations. These include U-89-BL-0464 (the Sigurd/Kings Meadow Power Line), U-91-BL-0409 (Telephone Reroute), U-93-BL-0184 (Sage Flat Landfill), U-94-BL-0078 (Sage Flat Landfill Road), U-97-SC-0217 (Chevron Seismic Prospect) and U-99-BL-0488 (Salina Exchange).

In addition to these projects, MSA has completed or is currently involved with a number of other nearby projects. These include U-04-MV-0262 (Wellpad 17-2) located just southwest and across Highway 24 of the current or project, U-04-MV0395b, a pipeline from Wellpad 17-2 to Sigurd, U-04-MV-0647, another well pad located immediately north and east of A-2 (Figure 1) and U-04-MV-0106, a series of 8 seismic lines, one of which runs to the south of the current project location.

The seismic line survey documented two sites within a mile of the current project. Site 42SV2667 and 42SV2668 are small historic sites consisting of fence posts (e.g corrals) and trash scatters located west (42SV2667) and south (42SV2668) of the current project location. Neither site will be impacted by proposed activities.

Methods

The well pad location was plotted by MSA with coordinates provided by the client. The well pad itself is 360 feet by 180 feet, and was inventoried by one archaeologist walking 15-meter transects.

Environment

The project location is located just east of Highway 24, south of Sigurd, Utah. Ground visibility was good within the well pad. The general area has already been developed. Vegetation is composed sagebrush with various bunch grasses and forbs. Sediments are a light brown sand and silt.

Results

No cultural resources were located within the well pad or access route. This includes archaeological sites and isolated finds.

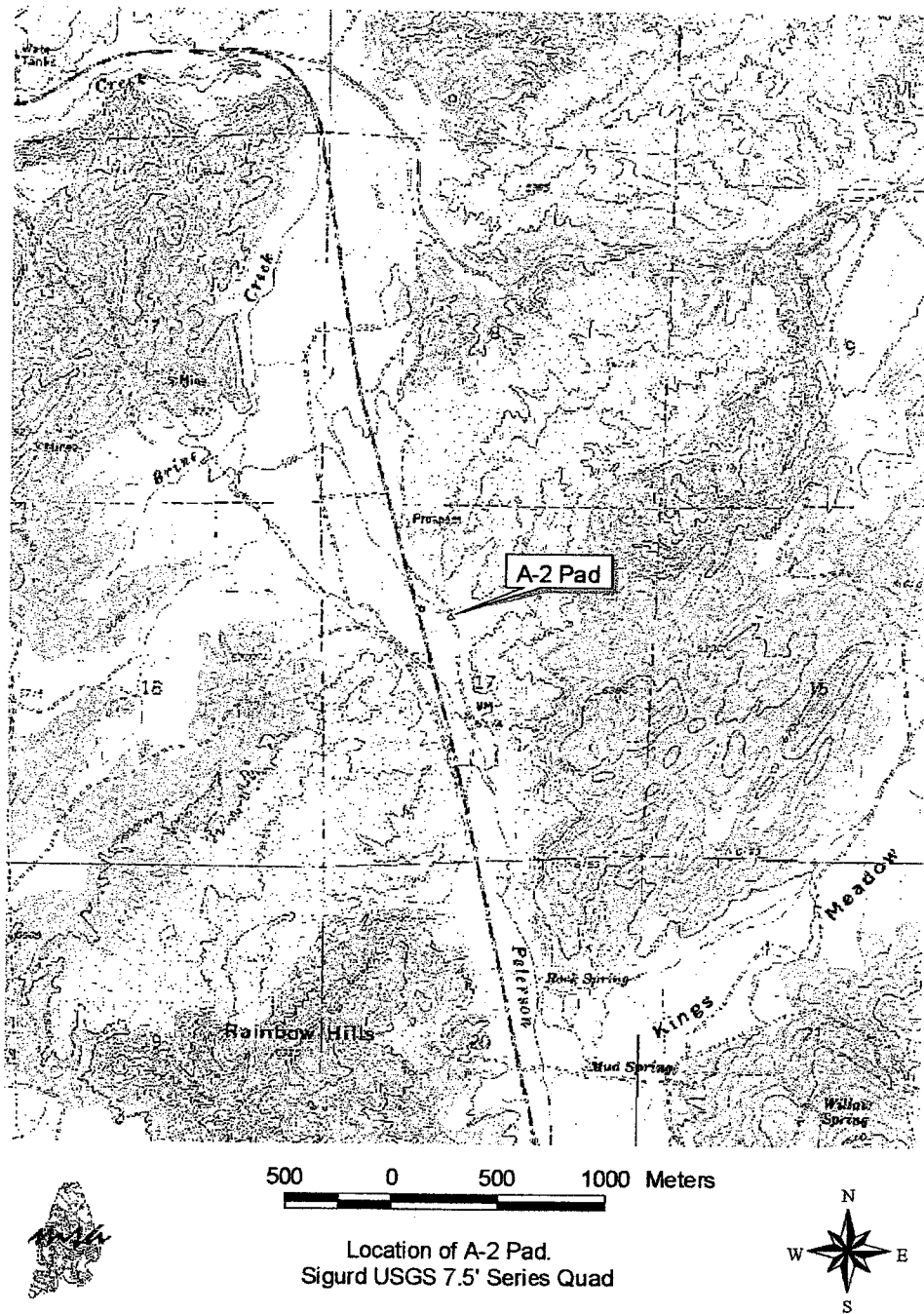


Figure 1. Location of A-2 well pad

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

DRILLING PROGNOSIS

Wolverine Federal # 17-6
NE NW SEC 17-T23S-R1W
SEVIER CO., UTAH

BRIEF DRILLING PLAN

Due to surface topography constraints, directionally drill a 6770' MD (6640'TVD) test of the Navajo 1 formation on a day work contract basis from Wolverine's present work area known as Drill Pad A-2 (f) located in SE NW of Sec 17 T23S – R01W, Sevier Co, UT. Please refer to the directional drilling plan attached for detailed hole angle, trajectory and target information. Deviation is the primary drilling concern in this area. No abnormal pressure or hydrogen sulfide gas is expected, however, an H2S detector will be utilized. The projected surface and bottomhole locations are to be as follows:

Surface Location: 1680' fnl & 2217' fwl of Sec 17 T23S – R01W
BHL @ top of NVJO1 (6083' TVD) 660' fnl & 1925' fwl of Sec 17 T23S – R01W

20" conductor casing will be cemented to surface at approximately 120 ft BGL. 13-3/8" surface csg will be set & cemented to surface in a 17-1/2" hole deviated to approximately 3 deg at +/- 2000' MD (+/- 2000' TVD). A 12-1/4" hole will then be drilled to +/- 6000' MD (5850' TVD) maintaining an approximate 16 deg tangent section. 9-5/8" protective casing will be set from surface to TD & cemented over the lower 2000'. An 8-1/2" hole will then be drilled to +/- 6770' (6640' TVD). 7" production casing will then be run from TD back to surface & cemented to approximately 800' into the 9-5/8" protective casing.

EMERGENCY NUMBERS

Sevier Valley Medical Center	(435)-896-8271
Medical Helicopter	(800)-453-0120
Sheriff Department	(435)-896-2600
Fire Department-Richfield, UT	(435)-896-5479
Bureau of Land Management (Richfield):	(435)-896-1500
Bureau of Land Management (Salt Lake City)	(801) 539-4045
Utah Division of Oil, Gas and Mining (Salt Lake City):	(801)-538-5340

United States Bureau of Land Management

Contact Al McKee (801) 539-4045 24 hrs prior to spudding

Utah Division of Oil, Gas and Mining

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

GENERAL INFORMATION

OBJECTIVE: Navajo 1 @ 6083' (TVD) **ELEVATION:** 5736' GL (actual) 5753' KB

PROJECTED TOTAL DEPTH: 6770' MD; 6640' TVD

SURFACE LOCATION: 1680' FNL & 2217' FWL
Section 17-23S-1W

COUNTY: Sevier **STATE:** Utah

DIRECTIONS TO LOCATION: From the town of Sigurd, Utah go south
approximately 3.5 miles on Hwy #24 to location on
the left side of the road.

PROPOSED CASING PROGRAM:

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth Set
30"	20"	.25 wall	X42	PE welded	120'
17-1/2"	13-3/8"	68#	J-55	BTC	0'-2000'
12-1/4"	9-5/8"	* 47#	N-80	LTC	0'-6000'
8-1/2"	7"	** 26#	N-80	LTC	0' -6770'

* due to availability 47# HCP-110 may be substituted for N80

** due to availability 23# HCP-110 may be substituted for 26# N80

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
30"	20"	Conductor	Na			
17-1/2"	13-3/8"	12.259	14.375	.6946	1.0982	.8406
12 1/4"	9-5/8"	8.525	10.625	0.3127	0.4659	0.4340
8-1/2"	7"	6.250	7.656	.1268	.1438	.2148

GEOLOGIC FORMATIONS:

Formation	Interval (TVD)	Interval (MD)	Lithology	Prod	Abnormal Psi
Arapien	Surf - 5715'	Surf - 5840'	sh, siltstone, salt, evaporites		
TwinCreek1	5715' - 6083'	5840' - 6210'	Carbonates	X	
Navajo 1	6083' - 6640'	6210' - 6770'	Sandstone w/ minor shale	X	
Total Depth	6640'	6770'			

CONSTRUCTION OF SURFACE LOCATION

360' x 180' Pad
150' x 100' x 10' Reserve Pit with a 12 mil synthetic liner
96" diameter tin horn cellar, 10' deep.
Flare pit a minimum of 100' from wellhead.

SURFACE HOLE: 120' to 2000'

Directionally drill a 17-1/2" hole with a PDC bit, mud motor & MWD equipment to approximately 2000' using salt mud system from prior well (make hole to fit 13-3/8" casing). Loss circulation could be a problem in this interval and, if such occurs, begin pumping LCM sweeps. If loss circulation cannot be healed with ± 25 ppb LCM, consider dry drilling (no returns). Maintain hole angle and direction in keeping with the attached directional plan.

PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE

Bottom to Top (see attached 2M Diverter diagram)

- 20" 2M x 20" SOW flange
- 20" 2M x 20" 2M mud cross w/ (2) 7-1/16" 2M side outlets
 - one outlet 7-1/16" HCR valve w/ 6" blooie line to mud separator & flare pit
 - one outlet (blank)
- 20" 2M Annular Preventer
- 20" 2M flanged btm drilling nipple w/ fillup line
- Upper kelly cock valves with handles available
- Safety valves and subs to fit all drill string connections in use
- Inside BOP or float sub available

Testing Procedure:

Annular Preventer & HCR Valve

The annular preventer will be pressure tested to 500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed

- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

MUD PROGRAM FOR SURFACE HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
-------	------------	------	------	------------

120 -2000'	9.6 – 10.2	Salt mud	40-55	N/C
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Note: Sweep hole every 100 – 200 feet or as needed for hole cleaning. Maintain maximum flowrates for hole cleaning. Use salt gel and FlowZan polymer to maintain properties. Reduce fluid loss with Anco-Phalt and/or Gilsonite for lubricity.

CASING PROGRAM FOR SURFACE HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
-------	------	--------	----	-------	--------	---------

120 - 2000'	13-3/8"	2000'	68#	J-55	BT&C	
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Casing Running Sequence:

guide shoe, 1 jt of 13-3/8" 68# J55 BT&C, Float collar, balance of 13-3/8" 68# J55 BT&C, centralizers as reqd. RU cement co., hold safety meeting, test lines, cement 13-3/8" casing per cement company recommendation and the cementing guide below. Displace with fresh water or mud.

CEMENTING PROGRAM FOR SURFACE HOLE

Lead:

500 sx hi-fill

Mixed at: 11.0 ppg
Yield: 3.86 ft³/sx

Tail: 450 sx Premium G

Mixed at: 15.8 ppg
Yield: 1.18 ft³/sx

MUST CIRCULATE CEMENT TO SURFACE If the cement does **not** circulate to surface contact the BLM and UDOGM office for further instructions and remedial actions. Top out with premium cement regardless of circulation.

WOC A TOTAL OF 24 HOURS:

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off conductor and weld on a 13-5/8" 5M x 13-3/8" SOW casing head w/ MBS spool configured to hang both 9-5/8" and 7" csg strings without nipples down BOPE. NU a 13-5/8" 5M double ram BOP w/ 5M annular and 5M choke manifold rigged to mud/gas separator, mud tanks and flare pit.

PROTECTIVE CASING HOLE: 2000' to 6000'

Trip in the hole with a 12-1/4" bit, mud motor & MWD. Drill float, shoe and 20' of new hole. Perform a formation integrity test to 10.5 ppg mud weight equivalent. Directionally drill a 12-1/4" hole with a PDC and/or a TCI rock bit, mud motor & MWD equipment to approximately 6000' MD using same salt mud system as above. Loss circulation, moving salt, gypsum and anhydrite stringers may be a problem in this interval. Maintain hole angle and azimuth in keeping with the attached directional plan. Protective casing should be set into the top of the Twin Creek formation approximately 100-150'.

**PRESSURE CONTROL AND SAFETY EQUIPMENT FOR
PROTECTIVE CASING STRING**

Bottom to Top (see attached 5M BOP diagram)

- 13-5/8" 5M x 13-3/8" SOW casing head w/ (2) 2-1/16" SSO's (for 9-5/8")
- 13-5/8" 5M x 13-5/8" 5M multi-bowl casing spool (for 7")
- 13-5/8" 5M x 13-5/8" spacer spool
- 13-5/8" 5M x 13-5/8" 5M mud cross with (2) side outlets:
 - one outlet 2-1/16" 5M kill line
 - one outlet 3-1/16" 5M choke line
- 13-5/8" 5M double ram BOP w/ 5" pipe rams top & CSO rams btm
- 13-5/8" 5M Annular Preventer
- 13-5/8" 5M rotating head
 - Connect BOP to choke manifold with pressure guage
 - Upper kelly cock valves with handles available
 - Safety valves and subs to fit all drill string connections in use
 - Inside BOP or float sub available

Testing Procedure:

Annular Preventer

The annular preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week.

Blowout Preventer

The BOP, choke manifold and related equipment will be pressure tested to 4500 psi, or 70% of the internal yield of the casing. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum limits specified in Onshore Oil & Gas Order Number 2 (only nitrogen gas may be used to pre-charge).

Choke Manifold Equipment, Valves and Remote Controls

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls will be capable of both opening and closing all preventers. Master controls will be at the accumulator and

will be capable of opening and closing all preventers and the choke line valve (if so equipped).

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub structure. The hydraulic BOP closing unit will be located at least twenty-five feet from the well head but readily accessible to the driller.

A flare line will be installed after the choke manifold, extending 100 feet from the center of the drill hole to a separate flare pit.

MUD PROGRAM FOR PROTECTIVE CASING HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
2000' – 6000'	9.8 – 10.2	Salt Mud	36 - 50	20-30cc or less

Maintain a salt mud system as salt and gypsum sections are drilled. If loss circulation becomes a problem use LCM sweeps to control seepage & clean hole.

CASING PROGRAM FOR PROTECTIVE CASING HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
0' – TD'	9-5/8"	6000'	* 47#	N-80	LT&C	

Rig up casing tools and run 9-5/8" protective casing as follows:

Float shoe, 2 joint of 9-5/8" * 47.0# N-80 LT&C casing, float collar, 6 centralizers, middle shoe joint and one every other joint for 12 jts, run balance of 9-5/8" 47# N-80

* due to availability 47# HCP-110 may be substituted

CEMENT PROGRAM FOR PROTECTIVE CASING

450 sx 50:50 POZ

Weight: 13.0 ppg
Yield: 1.71 ft³/sx

TOC at ~ 4000'; Calculate cement volume based on gauge hole plus 30% excess.
Displace with mud. Land 9-5/8" csg with casing mandrel. Lay down landing joint.
Clean pits and prepare for next hole section.

PRODUCTION HOLE: 6,000 to 6770'

Trip in the hole with an 8-1/2" insert bit, mud motor & MWD. Drill float, shoe and 20' of new hole.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PRODUCTION CASING STRING

Same as Protective String above due to utilization of Multi-Bowl Casing Head Assembly – Land 9-5/8" through BOPE with casing mandrel, release, test & proceed to drilling production hole section – Nipple down & nipple up NOT required – all BOPE remains intact – normal periodic pressure testing remains on schedule

MUD PROGRAM FOR PRODUCTION HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>pH</u>	<u>FLUID LOSS</u>
6000' - 6770'	8.3 – 9.0	LC Polymer	34-50	9.0-10.0	10cc or Less

EVALUATION PROGRAM FOR PRODUCTION HOLE

At TD, circulate and condition hole clean for logs. Short trip to the intermediate casing monitoring well closely. TOH for logs. Run Induction tool as run #1 to determine hole conditions for logging. Adjust tool configurations depending on hole condition.

Mudlogger: From 2000' to total depth.

Electric Logs:

<u>Tool</u>	<u>PCP to TD</u>
SDL/DSN/GR (DSN PCP to surface casing)	Yes
HRI/GR/SP (DLL/MSFL/SP/GR available if brine system)	Yes
EMI	Yes
NMR	Yes

DST: none planned

Cores: none planned

CASING PROGRAM FOR PRODUCTION HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
0' – TD'	7"	6770'	* 26#	N-80	LT&C	

* due to availability 23# HCP-110 may be substituted for 26# N-80

Rig up casing tools and run 7" production casing as follows:

Float shoe, 1 joint of 7" 26# N-80 LT&C casing, Float collar, Run balance of 7" 26# N80.

CEMENT PROGRAM FOR PRODUCTION CASING

400 sx (50:50) POZ Premium
2 % Bentonite
Friction reducer, salt & flocele

Weight: 14.35 ppg
Yield: 1.27 ft³/sx

TOC at \pm 5200 ft in 9-5/8" csg

Calculate cement volume based on log caliper +/- 25%. Displace cement w/water.

Hang 85-90% casing weight in slips, ND, cut off, install B-section and night cap. Clean pits and release rig.

SCHEDULE

Location preparation is presently scheduled to begin on or about May 15, 2005

Drilling operations are anticipated to begin on or about May 15, 2005

end



OLENE S. WALKER
Governor
GAYLE F. McKEACHNIE
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Water Rights

ROBERT L. MORGAN
Executive Director

JERRY D. OLDS
State Engineer/Division Director

April 12, 2004

Kings Meadow Ranches
C/O Mack Dastrup
P.O. Box 570125
Sigurd, UT 84657

RE: TEMPORARY CHANGE APPLICATION
t28851

Dear Sir:

The above numbered Temporary Change Application has been approved subject to prior rights and the following condition:

- ♦ The total amount of water diverted from Kings Meadow Creek will be limited to 14.0 acre-feet of water for uses associated with gas well drilling from May 30, 2004 to May 30, 2005. The historically irrigated land totaling 4.667 acres will not be irrigated.

Copies are herewith returned to you for your records and future reference.

Sincerely,

Kirk Forbush, P.E.
Regional Engineer
for Jerry Olds, State Engineer

JO/KF/cr
enclosure

Temporary Change

10. NATURE AND PERIOD OF USE

Irrigation: From 04/01 to 10/31
Stockwatering: From 01/01 to 12/31
Domestic: From 01/01 to 12/31
Municipal: From _____ to _____
Mining: From _____ to _____
Power: From _____ to _____
Other: From _____ to _____

11. PURPOSE AND EXTENT OF USE

Irrigation: 4.667 acres. Sole supply of _____ acres.
Stockwatering (number and kind): _____
Domestic: _____ Families and/or _____ Persons.
Municipal (name): _____
Mining: _____ Mining District in the _____ Mine.
Ores mined: _____
Power: Plant name: _____ Type: _____ Capacity: _____
Other (describe): _____

12. PLACE OF USE

Legal description of place of use by 40 acre tract(s): Section 20, T23S, R1W, SE/4, SLBM

13. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____
Capacity: _____ ac-ft. Inundated Area: _____ acres.
Height of dam: _____ feet.
Legal description of inundated area by 40 tract(s): _____

***** THE FOLLOWING CHANGES ARE PROPOSED *****

14. QUANTITY OF WATER: _____ cfs and/or 14 ac-ft.

15. SOURCE: Kings Meadow Creek

Balance of the water will be abandoned: _____, or will be used as heretofore: _____

16. COUNTY: Sevier N E

17. POINT(S) OF DIVERSION: S 869', W 1,901' from SW corner of Section 17,
T23S, R1W, SLBM

Description of Diverting Works: _____

*COMMON DESCRIPTION: _____

18. POINT(S) OF REDIVERSION

The water will be rediverted from _____ at a point: _____

Description of Diverting Works: _____

19. POINT(S) OF RETURN

The amount of water to be consumed is _____ cfs or _____ ac-ft.

The amount of water to be returned is _____ cfs or _____ ac-ft.

The water will be returned to the natural stream/source at a point(s): _____

20. NATURE AND PERIOD OF USE

Irrigation: From ____/____/____ to ____/____/____
Stockwatering: From ____/____/____ to ____/____/____
Domestic: From ____/____/____ to ____/____/____
Municipal: From ____/____/____ to ____/____/____
Mining: From ____/____/____ to ____/____/____
Power: From ____/____/____ to ____/____/____
Other: From 05/30/04 to 05/30/05

21. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
Stockwatering (number and kind): _____
Domestic: _____ Families and/or _____ Persons.
Municipal (name): _____
Mining: _____ Mining District at the _____ Mine.
Ores mined: _____
Power: Plant name: _____ Type: _____ Capacity: _____
Other (describe): Use water for gas well drilling

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): Section 17, T23S, R1W, SE/SW, SLBM

23. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____
Capacity: _____ ac-ft. Inundated Area: _____ acres.
Height of dam: _____ feet.
Legal description of inundated area by 40 tract(s): _____

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary): _____

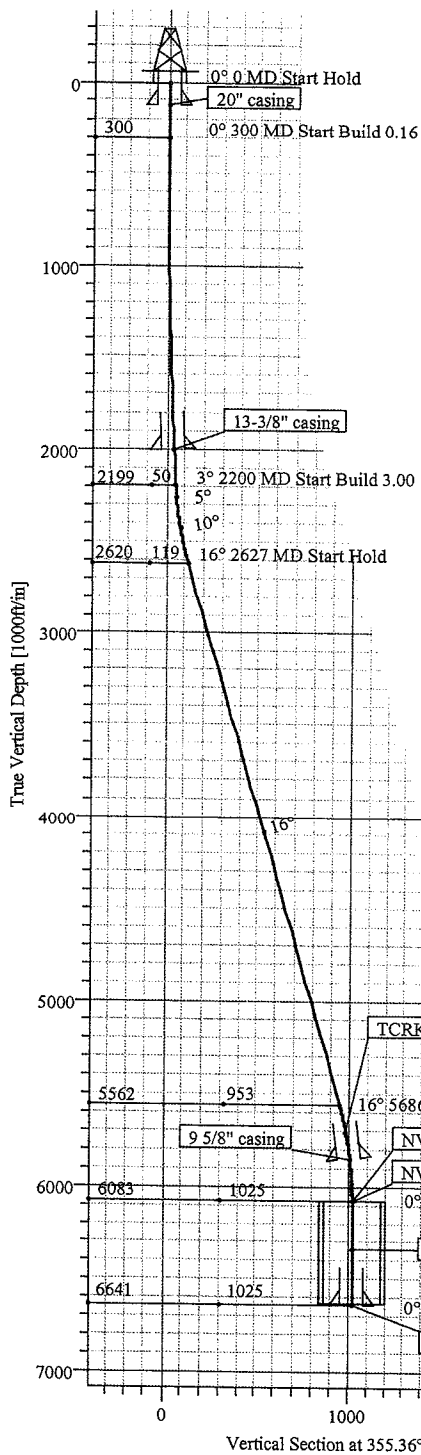
Mack Dastrup (435) 896-5206	Kenneth Dastrup (435) 896-8759
P.O. Box 570125	P.O. Box 570056
Sigurd, Utah 84657	Sigurd, Utah 84657

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Mack Dastrup
Signature of Applicant(s)



Wolverine Gas & Oil Co of Utah, LLC
Wolverine Federal 17-6 F (PAD A-2)
Sevier County, Utah



FIELD DETAILS	
Sevier County, Utah	
Geodetic System:	US State Plane Coordinate System 1983
Ellipsoid:	GRS 1980
Zone:	Utah, Central Zone
Magnetic Model:	igr2005
System Datum:	Mean Sea Level
Local North:	True North

SITE DETAILS	
Pad A-2	
T23S R01W Sevier County, Utah	
NW/4 SE/4 Sec 17	
Site Centre Latitude:	38°48'19.460N
Longitude:	111°56'02.879W
Water Depth:	0.00
Positional Uncertainty:	0.00
Convergence:	-0.28

FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	5715.00	5842.65	TCRK
2	6083.00	6212.96	NVJ01
3	6341.00	6470.96	OWC

CASING DETAILS				
No.	TVD	MD	Name	Size
1	120.00	120.00	20" casing	20.000
2	2000.00	2000.62	13-3/8" casing	13.375
3	5850.00	5979.38	9 5/8" casing	9.625
4	6641.00	6770.96	7" casing	7.000



Azimuths to True North
Magnetic North: 12.57°
Magnetic Field
Strength: 51957nT
Dip Angle: 64.52°
Date: 3/22/2005
Model: igr2005

Plan: 17-6 (F slot) version 3 (17-6(F)/1)	
Created By: Marie Connolly	Date: 3/29/2005
Checked: _____	Date: _____
Reviewed: _____	Date: _____
Approved: _____	Date: _____

SECTION DETAILS

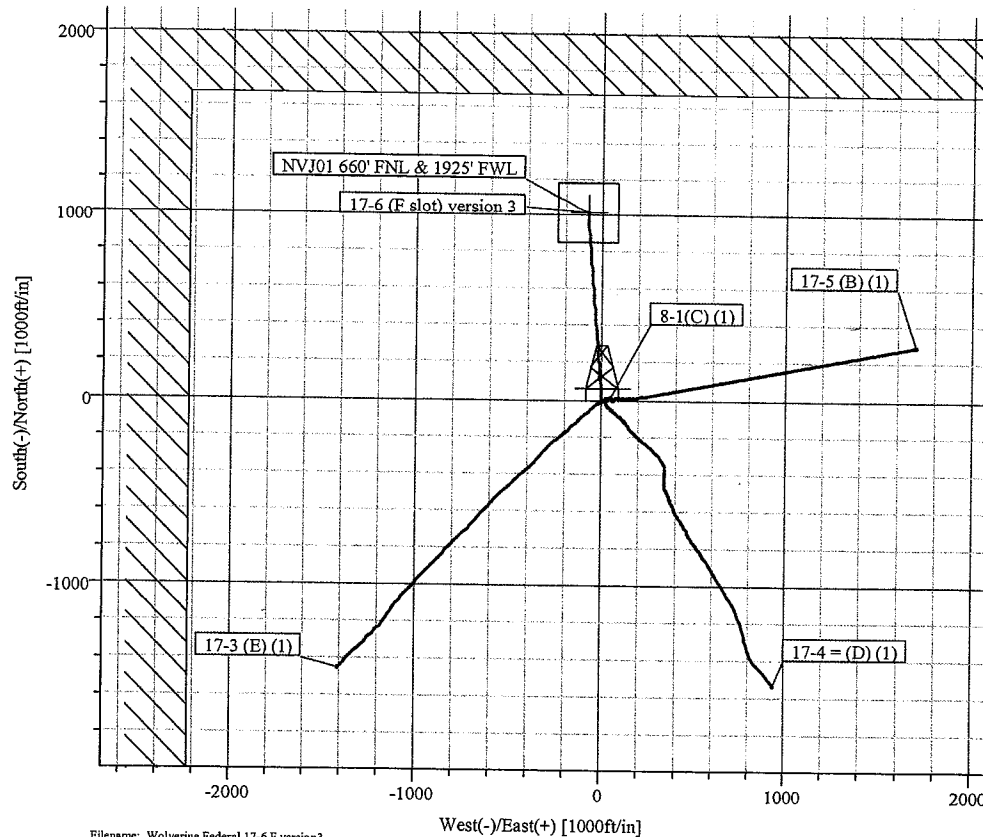
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	355.36	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	355.36	300.00	0.00	0.00	0.00	355.36	0.00	
3	2200.00	3.00	355.36	2199.13	49.57	-4.03	0.16	355.36	49.73	
4	2627.22	15.82	355.36	2619.73	119.03	-9.67	3.00	0.00	119.42	
5	5685.74	15.82	355.36	5562.45	949.93	-77.15	0.00	0.00	953.05	
6	6212.96	0.00	355.36	6083.00	1022.00	-83.00	3.00	180.00	1025.36	NVJ01 660' FNL & 1925' FWL
7	6770.96	0.00	355.36	6641.00	1022.00	-83.00	0.00	355.36	1025.36	

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
17-6(F)	0.00	0.00	6733932.00	1516692.09	38°48'19.460N	111°56'02.879W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NVJ01 660' FNL & 1925' FWL	6083.00	1022.00	-83.00	6734954.39	1516614.06	38°48'29.561N	111°56'03.927W	Rectangle (330x330)



Filename: Wolverine Federal 17-6 F version 3

Weatherford International

Planning Report



Company: Wolverine Gas & Oil Co of Utah	Date: 3/29/2005	Time: 07:29:49	Page: 1
Field: Sevier County, Utah	Co-ordinate(NE) Reference: Well: 17-6(F), True North		
Site: Pad A-2	Vertical (TVD) Reference: SITE 0.0		
Well: 17-6(F)	Section (VS) Reference: User (0.00N,0.00E,355.36Azi)		
Wellpath: 1	Plan: 17-6 (F slot) version 3		

Field: Sevier County, Utah

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: Utah, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf2005

Site: Pad A-2
 T23S R01W Sevier County, Utah
 NW/4 SE/4 Sec 17

Site Position:	Northing: 6733932.00 ft	Latitude: 38 48 19.460 N	
From: Geographic	Easting: 1516692.09 ft	Longitude: 111 56 2.879 W	
Position Uncertainty: 0.00 ft		North Reference: True	
Ground Level: 0.00 ft		Grid Convergence: -0.28 deg	

Well: 17-6(F) Slot is "site center" for pad A-2	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 38 48 19.460 N
+E/-W 0.00 ft	Longitude: 111 56 2.879 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 3/22/2005	Above System Datum: Mean Sea Level
Field Strength: 51957 nT	Declination: 12.57 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 64.52 deg
ft	+N/-S
	+E/-W
	ft
	Direction bearing
0.00	0.00
0.00	355.36

Plan: 17-6 (F slot) version 3	Date Composed: 3/28/2005
Principal: Yes	Version: 2
	Tied-to: From Surface

Plan Section Information

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	355.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	355.36	300.00	0.00	0.00	0.00	0.00	0.00	355.36	
2200.00	3.00	355.36	2199.13	49.57	-4.03	0.16	0.16	0.00	355.36	
2627.22	15.82	355.36	2619.73	119.03	-9.67	3.00	3.00	0.00	0.00	
5685.74	15.82	355.36	5562.45	949.93	-77.15	0.00	0.00	0.00	0.00	
6212.96	0.00	355.36	6083.00	1022.00	-83.00	3.00	-3.00	0.00	180.00	NVJ01 660' FNL & 1925' FW
6770.96	0.00	355.36	6641.00	1022.00	-83.00	0.00	0.00	0.00	355.36	

Section 1 : Start Hold

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	355.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	355.36	300.00	0.00	0.00	0.00	0.00	0.00	0.00	355.36

Section 2 : Start Build 0.16

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
400.00	0.16	355.36	400.00	0.14	-0.01	0.14	0.16	0.16	0.00	0.00
500.00	0.32	355.36	500.00	0.55	-0.04	0.55	0.16	0.16	0.00	0.00
600.00	0.47	355.36	600.00	1.24	-0.10	1.24	0.16	0.16	0.00	0.00
700.00	0.63	355.36	699.99	2.20	-0.18	2.20	0.16	0.16	0.00	0.00
800.00	0.79	355.36	799.98	3.43	-0.28	3.44	0.16	0.16	0.00	0.00
900.00	0.95	355.36	899.97	4.94	-0.40	4.96	0.16	0.16	0.00	0.00
1000.00	1.11	355.36	999.96	6.73	-0.55	6.75	0.16	0.16	0.00	0.00
1100.00	1.26	355.36	1099.94	8.79	-0.71	8.82	0.16	0.16	0.00	0.00
1200.00	1.42	355.36	1199.91	11.12	-0.90	11.16	0.16	0.16	0.00	0.00
1300.00	1.58	355.36	1299.87	13.73	-1.12	13.78	0.16	0.16	0.00	0.00

Weatherford International

Planning Report



Weatherford
DIRECTIONAL SERVICES

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 17-6(F)
Wellpath: 1

Date: 3/29/2005
Co-ordinate(NE) Reference: Well: 17-6(F), True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: User (0.00N,0.00E,355.36Azi)
Plan: 17-6 (F slot) version 3

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Section 2 : Start Build 0.16

MD ft	Incl deg	Azim bearing	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1400.00	1.74	355.36	1399.83	16.62	-1.35	16.67	0.16	0.16	0.00	0.00
1500.00	1.89	355.36	1499.78	19.77	-1.61	19.84	0.16	0.16	0.00	0.00
1600.00	2.05	355.36	1599.72	23.21	-1.88	23.28	0.16	0.16	0.00	0.00
1700.00	2.21	355.36	1699.65	26.91	-2.19	27.00	0.16	0.16	0.00	0.00
1800.00	2.37	355.36	1799.57	30.90	-2.51	31.00	0.16	0.16	0.00	0.00
1900.00	2.53	355.36	1899.48	35.15	-2.85	35.27	0.16	0.16	0.00	0.00
2000.00	2.68	355.36	1999.38	39.68	-3.22	39.81	0.16	0.16	0.00	0.00
2000.62	2.68	355.36	2000.00	39.71	-3.23	39.84	0.00	0.00	0.00	180.00
2100.00	2.84	355.36	2099.26	44.49	-3.61	44.63	0.16	0.16	0.00	0.00
2200.00	3.00	355.36	2199.13	49.57	-4.03	49.73	0.16	0.16	0.00	0.00

Section 3 : Start Build 3.00

MD ft	Incl deg	Azim bearing	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2300.00	6.00	355.36	2298.81	57.39	-4.66	57.58	3.00	3.00	0.00	0.00
2400.00	9.00	355.36	2397.95	70.39	-5.72	70.63	3.00	3.00	0.00	0.00
2500.00	12.00	355.36	2496.26	88.56	-7.19	88.85	3.00	3.00	0.00	0.00
2600.00	15.00	355.36	2593.49	111.82	-9.08	112.19	3.00	3.00	0.00	0.00
2627.22	15.82	355.36	2619.73	119.03	-9.67	119.42	3.00	3.00	0.00	0.00

Section 4 : Start Hold

MD ft	Incl deg	Azim bearing	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2700.00	15.82	355.36	2689.75	138.80	-11.27	139.26	0.00	0.00	0.00	0.00
2800.00	15.82	355.36	2785.97	165.97	-13.48	166.52	0.00	0.00	0.00	0.00
2900.00	15.82	355.36	2882.18	193.14	-15.69	193.77	0.00	0.00	0.00	0.00
3000.00	15.82	355.36	2978.39	220.30	-17.89	221.03	0.00	0.00	0.00	0.00
3100.00	15.82	355.36	3074.61	247.47	-20.10	248.28	0.00	0.00	0.00	0.00
3200.00	15.82	355.36	3170.82	274.64	-22.30	275.54	0.00	0.00	0.00	0.00
3300.00	15.82	355.36	3267.03	301.80	-24.51	302.80	0.00	0.00	0.00	0.00
3400.00	15.82	355.36	3363.25	328.97	-26.72	330.05	0.00	0.00	0.00	0.00
3500.00	15.82	355.36	3459.46	356.14	-28.92	357.31	0.00	0.00	0.00	0.00
3600.00	15.82	355.36	3555.68	383.30	-31.13	384.56	0.00	0.00	0.00	0.00
3700.00	15.82	355.36	3651.89	410.47	-33.34	411.82	0.00	0.00	0.00	0.00
3800.00	15.82	355.36	3748.10	437.64	-35.54	439.08	0.00	0.00	0.00	0.00
3900.00	15.82	355.36	3844.32	464.80	-37.75	466.33	0.00	0.00	0.00	0.00
4000.00	15.82	355.36	3940.53	491.97	-39.95	493.59	0.00	0.00	0.00	0.00
4100.00	15.82	355.36	4036.75	519.14	-42.16	520.84	0.00	0.00	0.00	0.00
4200.00	15.82	355.36	4132.96	546.30	-44.37	548.10	0.00	0.00	0.00	0.00
4300.00	15.82	355.36	4229.17	573.47	-46.57	575.36	0.00	0.00	0.00	0.00
4400.00	15.82	355.36	4325.39	600.63	-48.78	602.61	0.00	0.00	0.00	0.00
4500.00	15.82	355.36	4421.60	627.80	-50.99	629.87	0.00	0.00	0.00	0.00
4600.00	15.82	355.36	4517.81	654.97	-53.19	657.12	0.00	0.00	0.00	0.00
4700.00	15.82	355.36	4614.03	682.13	-55.40	684.38	0.00	0.00	0.00	0.00
4800.00	15.82	355.36	4710.24	709.30	-57.60	711.64	0.00	0.00	0.00	0.00
4900.00	15.82	355.36	4806.46	736.47	-59.81	738.89	0.00	0.00	0.00	0.00
5000.00	15.82	355.36	4902.67	763.63	-62.02	766.15	0.00	0.00	0.00	0.00
5100.00	15.82	355.36	4998.88	790.80	-64.22	793.41	0.00	0.00	0.00	0.00
5200.00	15.82	355.36	5095.10	817.97	-66.43	820.66	0.00	0.00	0.00	0.00
5300.00	15.82	355.36	5191.31	845.13	-68.64	847.92	0.00	0.00	0.00	0.00
5400.00	15.82	355.36	5287.53	872.30	-70.84	875.17	0.00	0.00	0.00	0.00
5500.00	15.82	355.36	5383.74	899.47	-73.05	902.43	0.00	0.00	0.00	0.00
5600.00	15.82	355.36	5479.95	926.63	-75.26	929.69	0.00	0.00	0.00	0.00
5685.74	15.82	355.36	5562.45	949.93	-77.15	953.05	0.00	0.00	0.00	0.00

Section 5 : Start Drop -3.00

MD ft	Incl deg	Azim bearing	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5700.00	15.39	355.36	5576.18	953.75	-77.46	956.89	3.00	-3.00	0.00	180.00
5800.00	12.39	355.36	5673.25	977.67	-79.40	980.89	3.00	-3.00	0.00	180.00
5842.65	11.11	355.36	5715.00	986.33	-80.10	989.58	3.00	-3.00	0.00	-180.00

Weatherford International

Planning Report



Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 17-6(F)
Wellpath: 1

Date: 3/29/2005
Co-ordinate(NE) Reference: Well: 17-6(F), True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: User (0.00N,0.00E,355.36Azi)
Plan: 17-6 (F slot) version 3

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Section 5 : Start Drop -3.00

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5900.00	9.39	355.36	5771.44	996.50	-80.93	999.78	3.00	-3.00	0.00	180.00
5979.38	7.01	355.36	5850.00	1007.78	-81.85	1011.10	3.00	-3.00	0.00	-180.00
6000.00	6.39	355.36	5870.48	1010.18	-82.04	1013.50	3.00	-3.00	0.00	180.00
6100.00	3.39	355.36	5970.10	1018.67	-82.73	1022.03	3.00	-3.00	0.00	180.00
6200.00	0.39	355.36	6070.04	1021.96	-83.00	1025.32	3.00	-3.00	0.00	180.00
6212.96	0.00	355.36	6083.00	1022.00	-83.00	1025.36	3.00	-3.00	0.00	-180.00

Section 6 : Start Hold

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6300.00	0.00	355.36	6170.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36
6400.00	0.00	355.36	6270.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36
6470.96	0.00	355.36	6341.00	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36
6500.00	0.00	355.36	6370.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36
6600.00	0.00	355.36	6470.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36
6700.00	0.00	355.36	6570.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36
6770.96	0.00	355.36	6641.00	1022.00	-83.00	1025.36	0.00	0.00	0.00	355.36

Survey

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
300.00	0.00	355.36	300.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
400.00	0.16	355.36	400.00	0.14	-0.01	0.14	0.16	0.16	0.00	MWD
500.00	0.32	355.36	500.00	0.55	-0.04	0.55	0.16	0.16	0.00	MWD
600.00	0.47	355.36	600.00	1.24	-0.10	1.24	0.16	0.16	0.00	MWD
700.00	0.63	355.36	699.99	2.20	-0.18	2.20	0.16	0.16	0.00	MWD
800.00	0.79	355.36	799.98	3.43	-0.28	3.44	0.16	0.16	0.00	MWD
900.00	0.95	355.36	899.97	4.94	-0.40	4.96	0.16	0.16	0.00	MWD
1000.00	1.11	355.36	999.96	6.73	-0.55	6.75	0.16	0.16	0.00	MWD
1100.00	1.26	355.36	1099.94	8.79	-0.71	8.82	0.16	0.16	0.00	MWD
1200.00	1.42	355.36	1199.91	11.12	-0.90	11.16	0.16	0.16	0.00	MWD
1300.00	1.58	355.36	1299.87	13.73	-1.12	13.78	0.16	0.16	0.00	MWD
1400.00	1.74	355.36	1399.83	16.62	-1.35	16.67	0.16	0.16	0.00	MWD
1500.00	1.89	355.36	1499.78	19.77	-1.61	19.84	0.16	0.16	0.00	MWD
1600.00	2.05	355.36	1599.72	23.21	-1.88	23.28	0.16	0.16	0.00	MWD
1700.00	2.21	355.36	1699.65	26.91	-2.19	27.00	0.16	0.16	0.00	MWD
1800.00	2.37	355.36	1799.57	30.90	-2.51	31.00	0.16	0.16	0.00	MWD
1900.00	2.53	355.36	1899.48	35.15	-2.85	35.27	0.16	0.16	0.00	MWD
2000.00	2.68	355.36	1999.38	39.68	-3.22	39.81	0.16	0.16	0.00	MWD
2000.62	2.68	355.36	2000.00	39.71	-3.23	39.84	0.00	0.00	0.00	13-3/8" casing
2100.00	2.84	355.36	2099.26	44.49	-3.61	44.63	0.16	0.16	0.00	MWD
2200.00	3.00	355.36	2199.13	49.57	-4.03	49.73	0.16	0.16	0.00	MWD
2300.00	6.00	355.36	2298.81	57.39	-4.66	57.58	3.00	3.00	0.00	MWD
2400.00	9.00	355.36	2397.95	70.39	-5.72	70.63	3.00	3.00	0.00	MWD
2500.00	12.00	355.36	2496.26	88.56	-7.19	88.85	3.00	3.00	0.00	MWD
2600.00	15.00	355.36	2593.49	111.82	-9.08	112.19	3.00	3.00	0.00	MWD
2627.22	15.82	355.36	2619.73	119.03	-9.67	119.42	3.00	3.00	0.00	MWD
2700.00	15.82	355.36	2689.75	138.80	-11.27	139.26	0.00	0.00	0.00	MWD
2800.00	15.82	355.36	2785.97	165.97	-13.48	166.52	0.00	0.00	0.00	MWD
2900.00	15.82	355.36	2882.18	193.14	-15.69	193.77	0.00	0.00	0.00	MWD
3000.00	15.82	355.36	2978.39	220.30	-17.89	221.03	0.00	0.00	0.00	MWD
3100.00	15.82	355.36	3074.61	247.47	-20.10	248.28	0.00	0.00	0.00	MWD
3200.00	15.82	355.36	3170.82	274.64	-22.30	275.54	0.00	0.00	0.00	MWD
3300.00	15.82	355.36	3267.03	301.80	-24.51	302.80	0.00	0.00	0.00	MWD
3400.00	15.82	355.36	3363.25	328.97	-26.72	330.05	0.00	0.00	0.00	MWD
3500.00	15.82	355.36	3459.46	356.14	-28.92	357.31	0.00	0.00	0.00	MWD

Weatherford International

Planning Report



Company: Wolverine Gas & Oil Co of Utah Field: Sevier County, Utah Site: Pad A-2 Well: 17-6(F) Wellpath: 1	Date: 3/29/2005 Co-ordinate(N/E) Reference: Well: 17-6(F), True North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: User (0.00N,0.00E,355.36Azi) Plan: 17-6 (F slot) version 3
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Survey

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
3600.00	15.82	355.36	3555.68	383.30	-31.13	384.56	0.00	0.00	0.00	MWD
3700.00	15.82	355.36	3651.89	410.47	-33.34	411.82	0.00	0.00	0.00	MWD
3800.00	15.82	355.36	3748.10	437.64	-35.54	439.08	0.00	0.00	0.00	MWD
3900.00	15.82	355.36	3844.32	464.80	-37.75	466.33	0.00	0.00	0.00	MWD
4000.00	15.82	355.36	3940.53	491.97	-39.95	493.59	0.00	0.00	0.00	MWD
4100.00	15.82	355.36	4036.75	519.14	-42.16	520.84	0.00	0.00	0.00	MWD
4200.00	15.82	355.36	4132.96	546.30	-44.37	548.10	0.00	0.00	0.00	MWD
4300.00	15.82	355.36	4229.17	573.47	-46.57	575.36	0.00	0.00	0.00	MWD
4400.00	15.82	355.36	4325.39	600.63	-48.78	602.61	0.00	0.00	0.00	MWD
4500.00	15.82	355.36	4421.60	627.80	-50.99	629.87	0.00	0.00	0.00	MWD
4600.00	15.82	355.36	4517.81	654.97	-53.19	657.12	0.00	0.00	0.00	MWD
4700.00	15.82	355.36	4614.03	682.13	-55.40	684.38	0.00	0.00	0.00	MWD
4800.00	15.82	355.36	4710.24	709.30	-57.60	711.64	0.00	0.00	0.00	MWD
4900.00	15.82	355.36	4806.46	736.47	-59.81	738.89	0.00	0.00	0.00	MWD
5000.00	15.82	355.36	4902.67	763.63	-62.02	766.15	0.00	0.00	0.00	MWD
5100.00	15.82	355.36	4998.88	790.80	-64.22	793.41	0.00	0.00	0.00	MWD
5200.00	15.82	355.36	5095.10	817.97	-66.43	820.66	0.00	0.00	0.00	MWD
5300.00	15.82	355.36	5191.31	845.13	-68.64	847.92	0.00	0.00	0.00	MWD
5400.00	15.82	355.36	5287.53	872.30	-70.84	875.17	0.00	0.00	0.00	MWD
5500.00	15.82	355.36	5383.74	899.47	-73.05	902.43	0.00	0.00	0.00	MWD
5600.00	15.82	355.36	5479.95	926.63	-75.26	929.69	0.00	0.00	0.00	MWD
5685.74	15.82	355.36	5562.45	949.93	-77.15	953.05	0.00	0.00	0.00	MWD
5700.00	15.39	355.36	5576.18	953.75	-77.46	956.89	3.00	-3.00	0.00	MWD
5800.00	12.39	355.36	5673.25	977.67	-79.40	980.89	3.00	-3.00	0.00	MWD
5842.65	11.11	355.36	5715.00	986.33	-80.10	989.58	3.00	-3.00	0.00	TCRK
5900.00	9.39	355.36	5771.44	996.50	-80.93	999.78	3.00	-3.00	0.00	MWD
5979.38	7.01	355.36	5850.00	1007.78	-81.85	1011.10	3.00	-3.00	0.00	9 5/8" casing
6000.00	6.39	355.36	5870.48	1010.18	-82.04	1013.50	3.00	-3.00	0.00	MWD
6100.00	3.39	355.36	5970.10	1018.67	-82.73	1022.03	3.00	-3.00	0.00	MWD
6200.00	0.39	355.36	6070.04	1021.96	-83.00	1025.32	3.00	-3.00	0.00	MWD
6212.96	0.00	355.36	6083.00	1022.00	-83.00	1025.36	3.00	-3.00	0.00	NVJ01 660' FNL & 1925' FW
6300.00	0.00	355.36	6170.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	MWD
6400.00	0.00	355.36	6270.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	MWD
6470.96	0.00	355.36	6341.00	1022.00	-83.00	1025.36	0.00	0.00	0.00	OWC
6500.00	0.00	355.36	6370.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	MWD
6600.00	0.00	355.36	6470.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	MWD
6700.00	0.00	355.36	6570.04	1022.00	-83.00	1025.36	0.00	0.00	0.00	MWD
6770.96	0.00	355.36	6641.00	1022.00	-83.00	1025.36	0.00	0.00	0.00	7" casing

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
NVJ01 660' FNL & 1925' FWL			6083.00	1022.00	-83.00	6734954.39	1516614.06	38 48 29.561 N	111 56 3.927 W
-Rectangle (330x330)									
-Plan hit target									

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
120.00	120.00	20.000	26.000	20" casing
2000.62	2000.00	13.375	17.500	13-3/8" casing
5979.38	5850.00	9.625	12.250	9 5/8" casing

Weatherford International

Planning Report



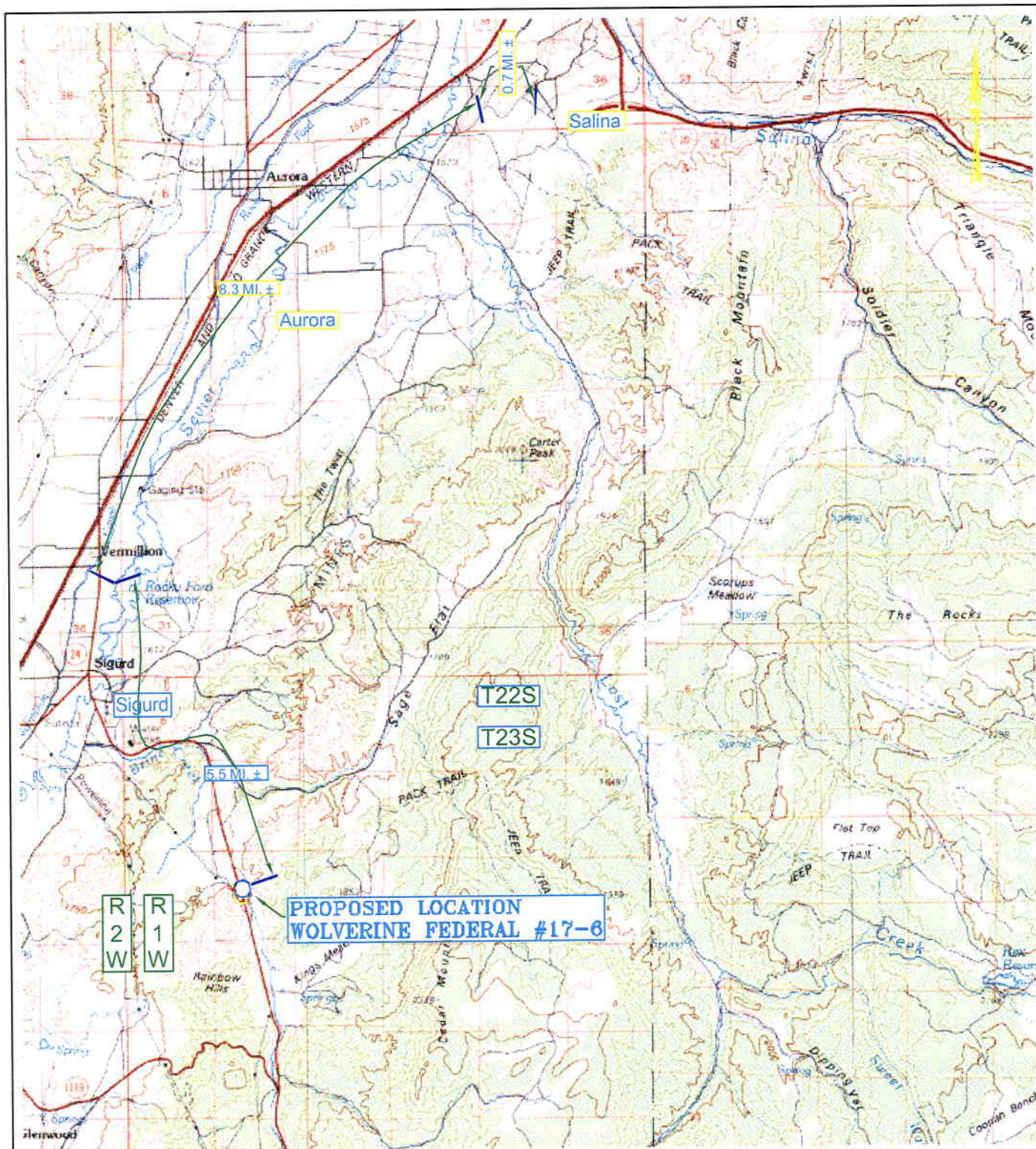
Company: Wolverine Gas & Oil Co of Utah Field: Sevier County, Utah Site: Pad A-2 Well: 17-6(F) Wellpath: 1	Date: 3/29/2005 Co-ordinate(NE) Reference: Well: 17-6(F), True North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: User (0.00N,0.00E,355.36Azi) Plan: 17-6 (F slot) version 3	Time: 07:29:49 Page: 5
---	---	---

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6770.96	6641.00	7.000	8.500	7" casing

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction bearing
5842.65	5715.00	TCRK		0.00	0.00
6212.96	6083.00	NVJO1		0.00	0.00
6470.96	6341.00	OWC		0.00	0.00



LEGEND



PROPOSED LOCATION



Jones & DeMille Engineering

1535 South 100 West - Richfield, Utah 84701
 (435) 896-8266 Phone
 (435) 896-8268 Fax
www.jonesanddemille.com

Wolverine Federal #17-6
 Section 17, T.23 S., R.1 W., S.L.B. & M.
 1680' FNL 2217' FWL

Wolverine Gas & Oil Corp.
Wolverine Federal #17-6

Location Map

SCALE: 1" = 10000'

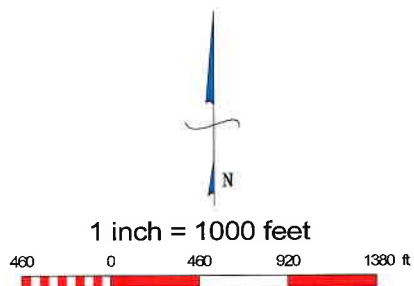
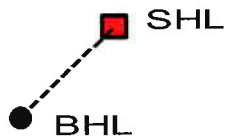
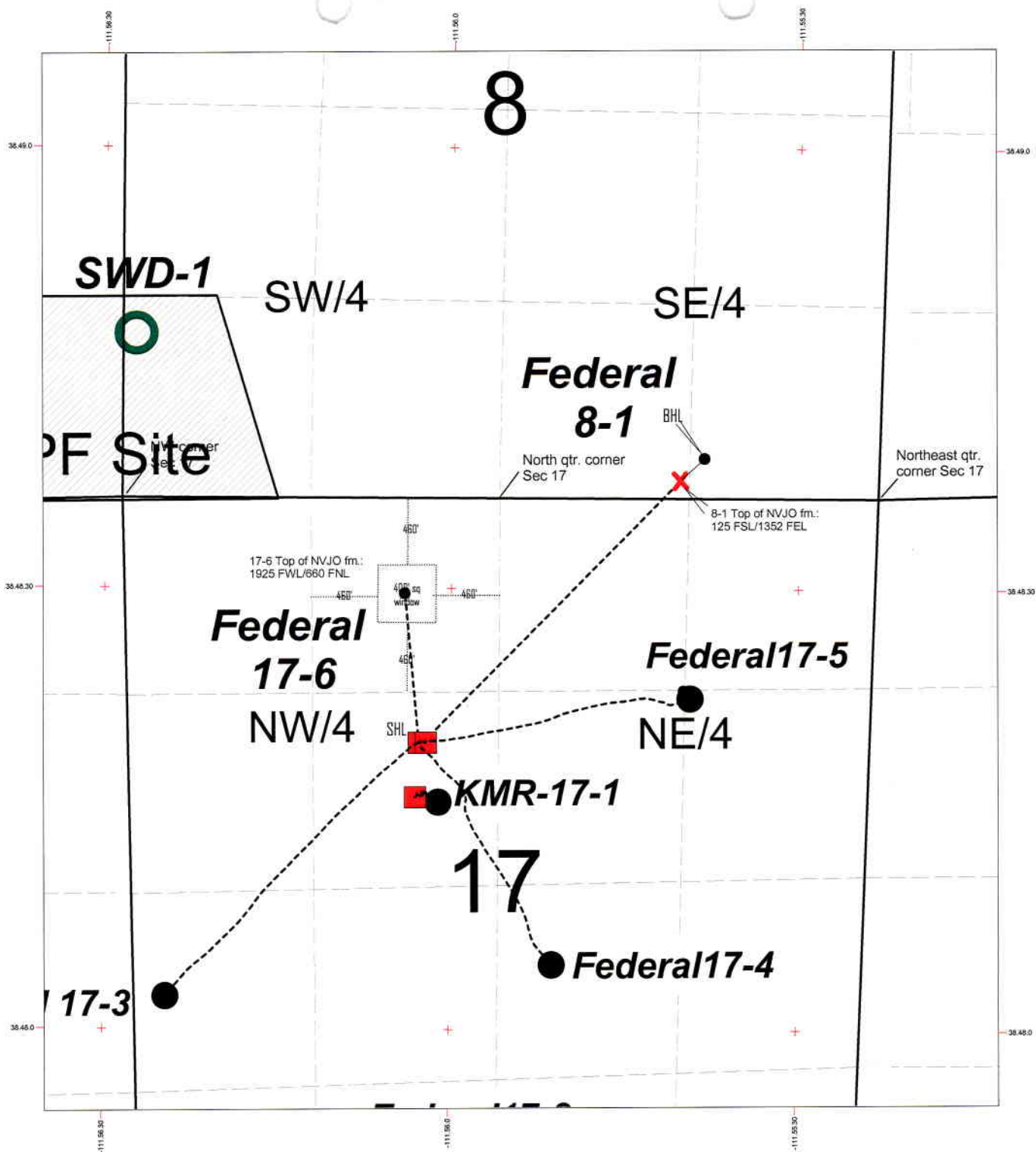
ENC.:

PROJ.#: 0406-160

DATE: July 2004

DWG.BY: T.R.G.

DWG.NAME: pro_location



	<p>Wolverine Gas & Oil Company of Utah, LLC (Operator) <i>Energy Exploration in Partnership with the Environment</i></p> <p>ONE RIVERFRONT PLAZA 55 CAMPAU, N.W. GRAND RAPIDS, MI 49503-2616 (616) 458-1150</p>
<p>Proposed Federal 17-6 well Location Section 17, T23S-R1W Sevier County, UT</p>	
<p>Date: 15 April, 2005</p>	<p>gmp: ml 17-6</p>

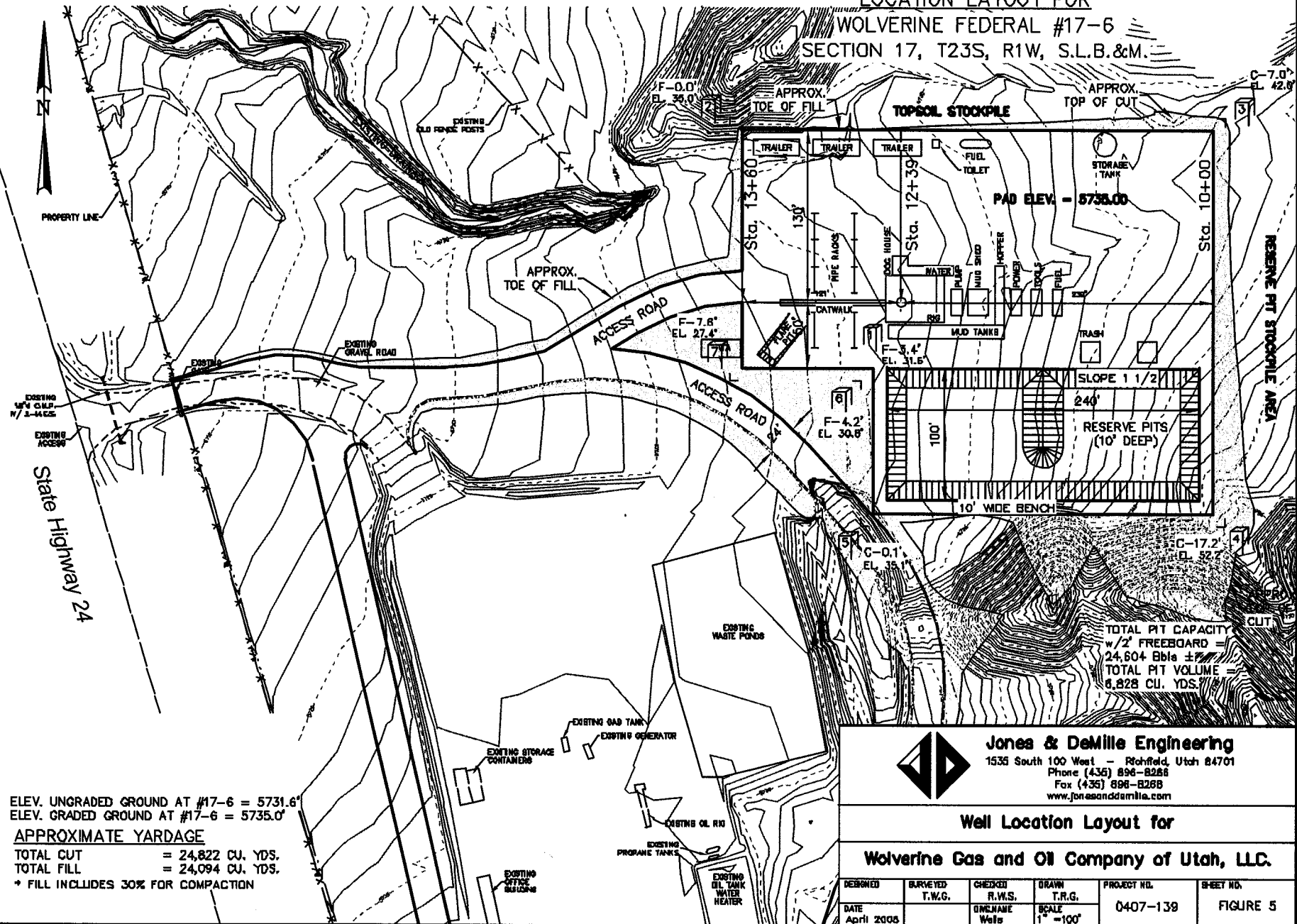
Attachment B

- Well Location Layout Map

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC.

LOCATION LAYOUT FOR

WOLVERINE FEDERAL #17-6
SECTION 17, T23S, R1W, S.L.B.&C.M.



PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

2M Diverter Stack — to be utilized while drilling holes for surface casing thru upper Arapien formation section

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Wolverine Federal # 17-6

Max. anticipated surface pressure 800 psi

Annular B.O.P. 20" 2M W.P.

B.O.P.
___ Manual
X Hydraulic
___ Sour Trim

B.O.P. none Rams none" na W.P.
(Pipe/Blind)

B.O.P. none Rams _____" _____ W.P.
(Pipe/Blind)

Check Valve none" _____ W.P.

Valve none" _____ W.P.

Valve blind flange W.P.

Valve 7-1/16" 2M "HCR"

Valve none

Kill Line Manifold

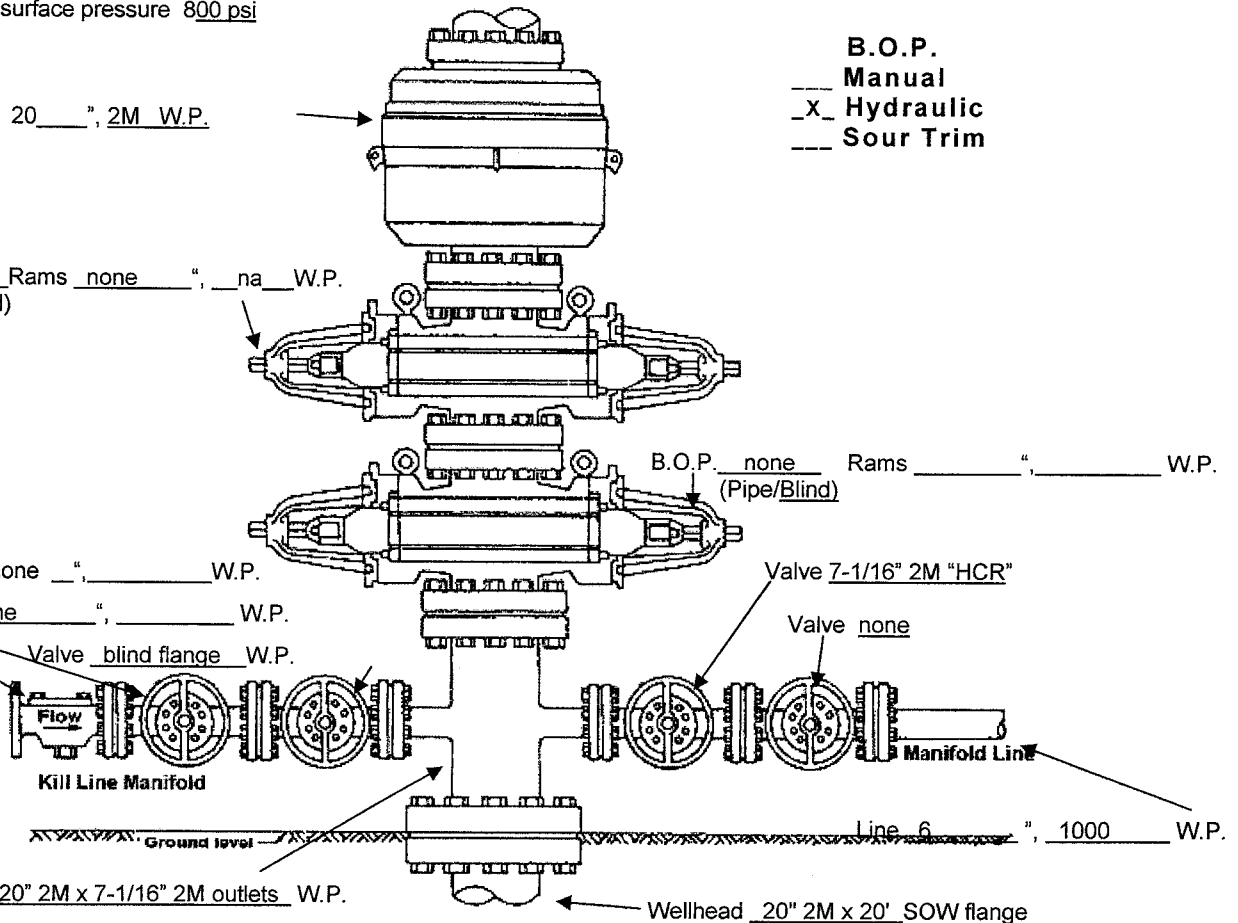
Manifold Line

Ground level

Line 6" 1000 W.P.

Spool 20" 2M x 20" 2M x 7-1/16" 2M outlets W.P.

Wellhead 20" 2M x 20" SOW flange



PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

5M BOP Stack --- to be utilized while drilling holes for protective and production casings thru lower Arapien, Twin Creek & Navajo intervals

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Wolverine Federal # 17-6

Max. anticipated surface pressure 3000 psi

Annular B.O.P. 13-5/8" - 5M WP

B.O.P. 5" pipe Rams 13-5/8" - 5M W.P.
(Pipe/Blind)

B.O.P. blind Rams 13-5/8" - 5M W.P.
(Pipe/Blind)

Check Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 3-1/16" 5M WP

Valve 3-1/16" 5M WP

Kill Line Manifold

Manifold Line

Line 3-1/16" 5M WP

Ground level

Spool 13-5/8" 5M x 13-5/8" 5M x 2-1/16" x 3-1/16" 5M outlets

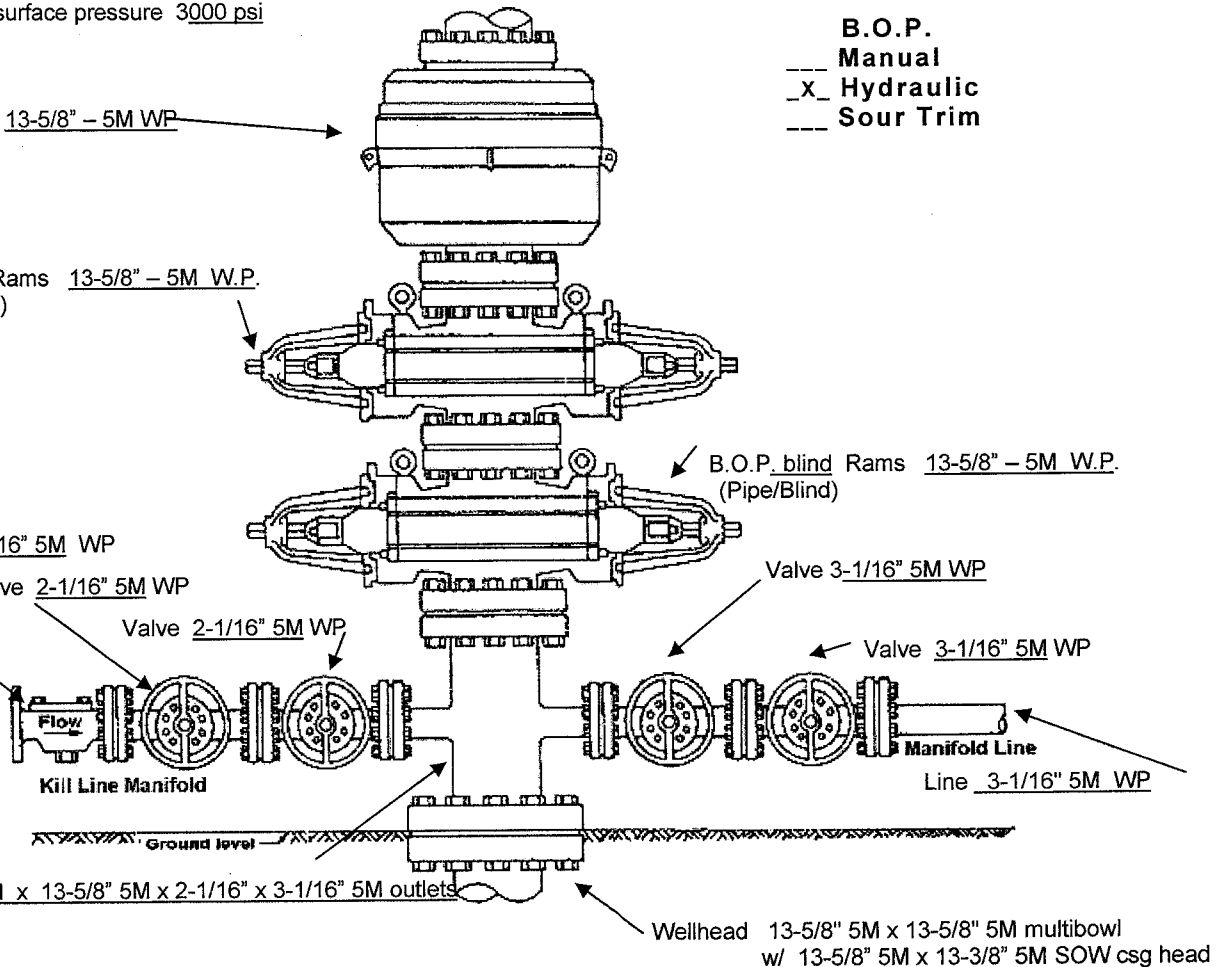
Wellhead 13-5/8" 5M x 13-5/8" 5M multibowl
w/ 13-5/8" 5M x 13-3/8" 5M SOW csg head

B.O.P.

Manual

☒ **Hydraulic**

☐ **Sour Trim**



APD Checklist

The APD shall include (please attach two copies if for State or Fee surface):

1. X A completed and signed Form 3 (application to drill, deepen or reenter). Make sure all blanks are filled and boxes are checked.
2. X Contact information and phone number for surface owner.
3. X Location plat. (Attachment A)
4. X Water Rights approval. (See Proj. Plan of Dev.;)
5. X Estimated geologic markers. (See Drilling Plan)
6. X Estimated top and bottom of anticipated water, oil, gas, other mineral zones and plans for their protection. (See Drilg Plan)
7. X Plan for pressure control (BOPE), including schematic and casing test. (See Drilg Plan)
8. X Description of mud system, including mud weights. (See Drilg Plan)
9. X Plans for testing, logging and coring. (See Drilg Plan)
10. X Expected bottom hole pressure, any anticipated abnormal pressures, temperatures, or hazards and plans for mitigation of them. (See Drilg Plan)
11. X Casing design (size, type, weight). (Drilg Plan)
12. X Cement design (type, weight, yield, estimated top, # sacks). (See Drilg Plan)
13. X Diagram of horizontal or directional well bore path including directional survey plan. (See Directional Plan / Drilg Plan)
14. NA Designation of agent if necessary.
15. X Bond. (BLM WY #3229)
16. X^{NA} Affidavit of Surface agreement. (Wolverine Gas & Oil owns surface Location)
17. NA Exception location application (if needed).

An application for directional drilling shall also include:

18. X Plat showing surface location, section and lease lines, target location, points along the well bore where owner consent has been obtained.
(See Attachment A)
19. X Reason for deviation.
(See Proj. Dev. Plan)

010

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 04/20/2005

AMENDED

AP NO. ASSIGNED: 43-041-30040

WELL NAME: KINGS MEADOW RANCHES 17-7OPERATOR: WOLVERINE GAS & OIL CO (N1655)CONTACT: EDWARD HIGUERAPHONE NUMBER: 616-458-1150

PROPOSED LOCATION:

SENW 17 230S 010W

SURFACE: 1680 FNL 2217 FWL

SWNW BOTTOM: 2204 FNL 1059 FWL

SEVIER

COVENANT (492)

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: NAVA

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review**Initials****Date**

Engineering

Geology

Surface

LATITUDE: 38.80554

LONGITUDE: -111.9333

RECEIVED AND/OR REVIEWED:

- ☒ Plat
- ☒ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 19107770)
- ☒ Potash (Y/N)
- ☒ Oil Shale 190-5 (B) or 190-3 or 190-13
- ☒ Water Permit
(No. 63-2529)
- ☒ RDCC Review (Y/N)
(Date:)
- ☒ Fee Surf Agreement (Y/N)
Surface owner is Wolverine.

LOCATION AND SITING:

R649-2-3.

Unit WOLVERINE

R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells☒ R649-3-3. Exception

Drilling Unit

Board Cause No: _____

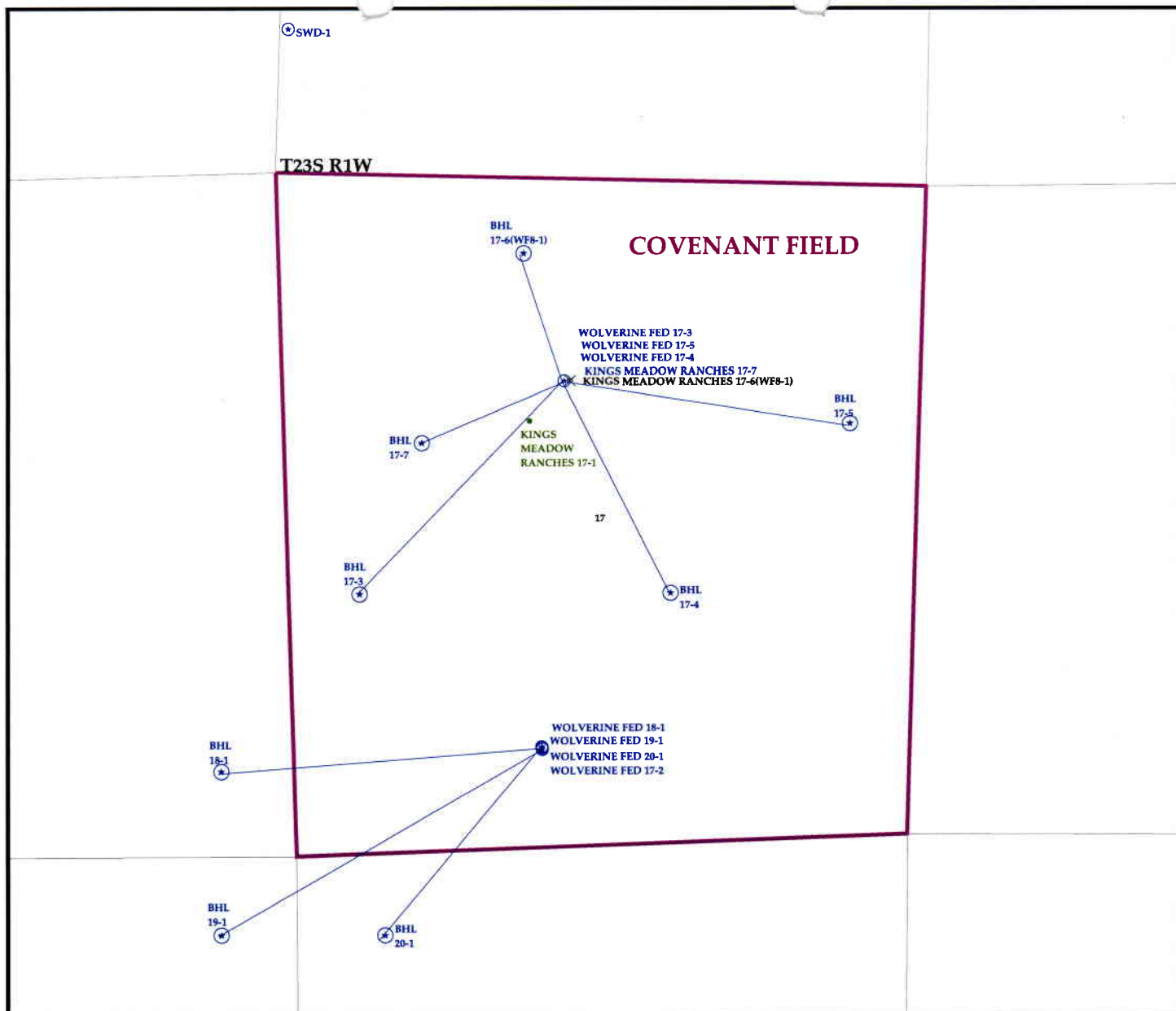
Eff Date: _____

Siting: _____

☒ R649-3-11. Directional Drill

COMMENTS: _____

STIPULATIONS: _____



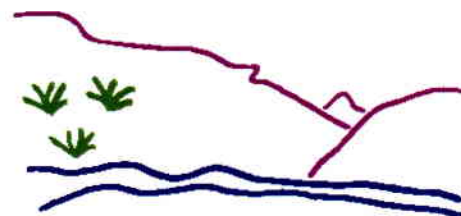
OPERATOR: WOLVERINE G&O CO (N1655)

SEC: 17 T. 23S R. 1W

FIELD: COVENANT (492)

COUNTY: SEVIER

SPACING: R649-3-11 / DIRECTIONAL DRILLING



Utah Oil Gas and Mining

Wells

- ✱ GAS INJECTION
- ✱ GAS STORAGE
- ✱ LOCATION ABANDONED
- ⊕ NEW LOCATION
- ✱ PLUGGED & ABANDONED
- ✱ PRODUCING GAS
- PRODUCING OIL
- ✱ SHUT-IN GAS
- ✱ SHUT-IN OIL
- ✱ TEMP. ABANDONED
- TEST WELL
- ⬆ WATER INJECTION
- ⬆ WATER SUPPLY
- ⬆ WATER DISPOSAL

Units.shp

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields.shp

- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED



PREPARED BY: DIANA WHITNEY
DATE: 9-JUNE-2005

05-05 Wolverine KMR 17-7

Casing Schematic

Surface

Asapier

TOC @ 0.

✓ Rotating head
~~not shown~~

✓ w/18" washout

13-3/8"
MW 9.6
Frac 19.3

Surface
2000. MD
1985. TVD

BOPE

5M BOPE proposed ✓

$$BOP (0.052)(9)(6683) = 3128 \text{ psi}$$

$$\text{Surf Press } (0.12)(6683) = 802 \text{ psi}$$

$$MAASP = 2326 \text{ psi}$$

Propose Test to 70% internal yield
or 4500 psi

$$\text{Surf Burst} = 3090 \text{ psi}$$

$$70\% = 2163 \text{ psi}$$

✓ Test to 2100 psi as proposed

$$\text{Intermediate} = 6870 \text{ psi}$$

$$70\% = 4809 \text{ psi}$$

✓ Test to 4500 psi as proposed

$$\text{Production} = 7240 \text{ psi}$$

$$70\% = 5068 \text{ psi}$$

✓ Test to 4500 psi as proposed

✓ Adequate DWD 6/1/05

9-5/8"
MW 10.2
Frac 19.3

7"
MW 10.2

TOC @ 4799.

TOC @ 4617.

✓ w/15" washout

-5794 Twin Cree K
MW

Intermediate
5950. MD
5833. TVD

688 MW
Nuvito

Production
6800. MD
6683. TVD

Well name:

05-05 Wolverine KMR 17-7Operator: **Wolverine Gas & Oil**String type: **Surface**

Project ID:

43-041-30040

Location: **Sevier County****Design parameters:****Collapse**

Mud weight: 9.600 ppg

Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 103 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Cement top: Surface

Burst

Max anticipated surface

pressure: 1,760 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 1,998 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 1,708 ft

Directional Info - Build & Drop

Kick-off point 1000 ft

Departure at shoe: 155 ft

Maximum dogleg: 2 °/100ft

Inclination at shoe: 13.55 °

Re subsequent strings:

Next setting depth: 5,871 ft

Next mud weight: 10.200 ppg

Next setting BHP: 3,111 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 2,000 ft

Injection pressure 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	13.375	61.00	J-55	ST&C	1985	2000	12.39	242.9
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	990	1540	1.556	1998	3090	1.55	104	595	5.73 J

Prepared Clinton Dworshak
by: Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: June 1, 2005
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 1985 ft, a mud weight of 9.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

05-05 Wolverine KMR 17-7Operator: **Wolverine Gas & Oil**String type: **Production**

Project ID:

43-041-30040

Location: **Sevier County****Design parameters:****Collapse**

Mud weight: 10.200 ppg

Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 169 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Cement top: 4,799 ft

Burst

Max anticipated surface

pressure: 2,739 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 3,541 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Directional Info - Build & Drop

Kick-off point 1000 ft

Departure at shoe: 1041 ft

Maximum dogleg: 2 °/100ft

Inclination at shoe: 0 °

Tension is based on buoyed weight.

Neutral point: 5,771 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6800	7	26.00	N-80	LT&C	6683	6800	6.151	356.5
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3541	5410	1.528	3541	7240	2.04	147	519	3.53 J

Prepared Clinton Dworshak
by: Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: June 1, 2005
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 6683 ft, a mud weight of 10.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

05-05 Wolverine KMR 17-7Operator: **Wolverine Gas & Oil**

String type: Intermediate

Project ID:

43-041-30040

Location: Sevier County

Design parameters:**Collapse**

Mud weight: 10.200 ppg

Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 157 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Cement top: 4,617 ft

Burst

Max anticipated surface

pressure: 2,722 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 3,422 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 5,040 ft

Directional Info - Build & Drop

Kick-off point 1000 ft

Departure at shoe: 1036 ft

Maximum dogleg: 2 °/100ft

Inclination at shoe: 3.35 °

Re subsequent strings:

Next setting depth: 6,641 ft

Next mud weight: 10.200 ppg

Next setting BHP: 3,519 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 5,688 ft

Injection pressure 5,688 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	5950	9.625	47.00	N-80	LT&C	5833	5950	8.625	560.8
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3091	4689	1.517	3422	6870	2.01	232	905	3.90 J

Prepared Clinton Dworshak
by: Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: June 1, 2005
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 5833 ft, a mud weight of 10.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

004

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 04/20/2005

API NO. ASSIGNED: 43-041-30040

WELL NAME: Kings Meadow Ranches 17-6
WOLVERINE FED 17-6OPERATOR: WOLVERINE GAS & OIL CO (N1655)CONTACT: ED WARD HIGUERAPHONE NUMBER: 616-458-1150

PROPOSED LOCATION:

SENW 17 230S 010W

NEW SURFACE: 1680 FNL 2217 FWL

BOTTOM: 0660 FNL 1925 FWL

SEVIER

COVENANT (492)

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: NAVA

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	5/9/05
Geology		
Surface		

LATITUDE: 38.80554

LONGITUDE: -111.9333

RECEIVED AND/OR REVIEWED:

- ☒ Plat
- ☒ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 19107754)
- ☒ Potash (Y/N)
- ☒ Oil Shale 190-5 (B) or 190-3 or 190-13
- ☒ Water Permit
(No. 43-2529)
- ☒ RDCC Review (Y/N)
(Date: _____)
- ☒ Fee Surf Agreement (Y/N)
Wolverine is Surface owner

LOCATION AND SITING:

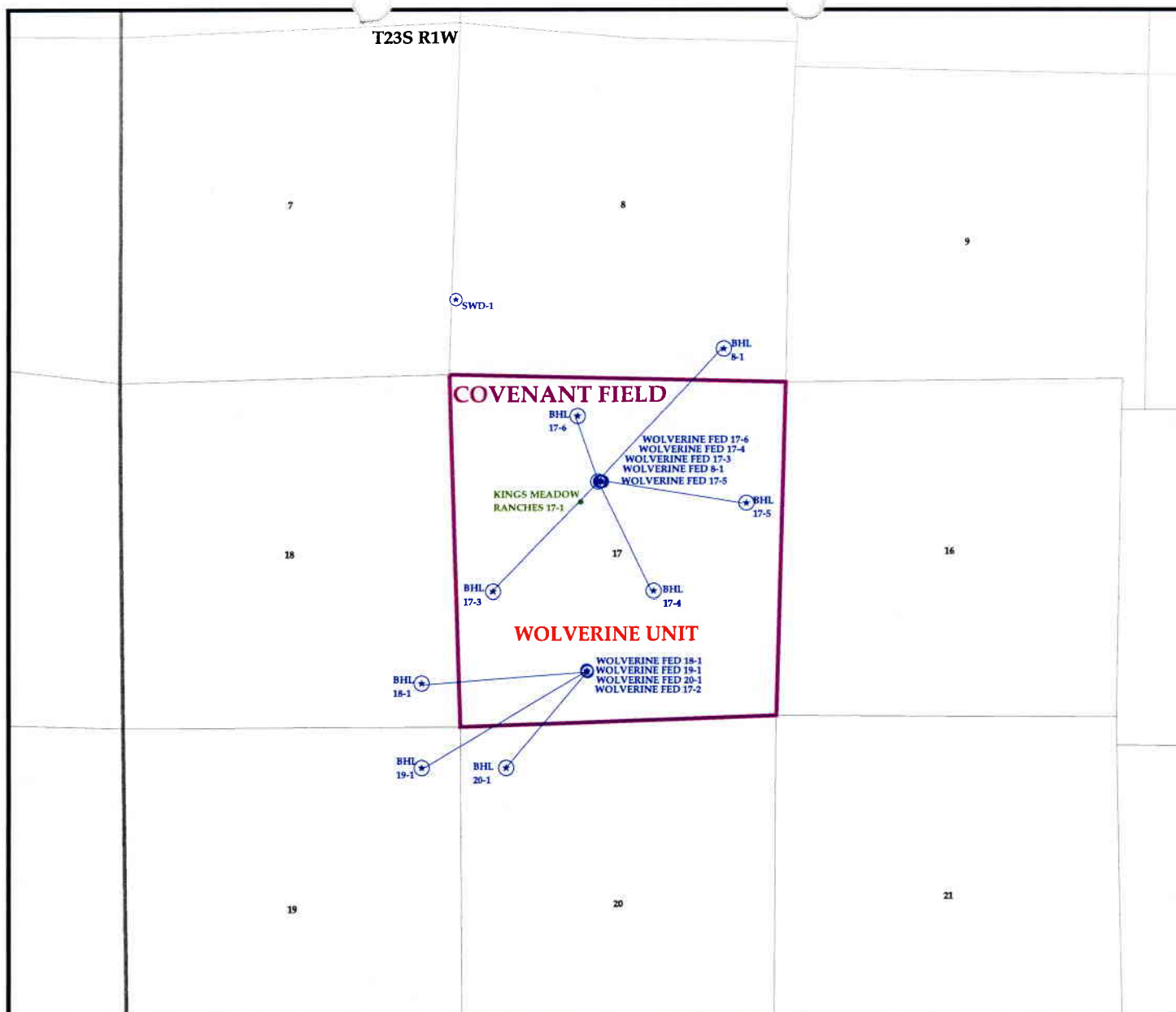
- ____ R649-2-3.
- Unit WOLVERINE H
- ____ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
- ____ R649-3-3. Exception
- ____ Drilling Unit
Board Cause No: _____
Eff Date: _____
Siting: _____
- ☒ R649-3-11. Directional Drill

COMMENTS:

Needs Permit (4-25-05)

STIPULATIONS:

- 1- Spacing Strip
- 2- STATEMENT OF BASIS



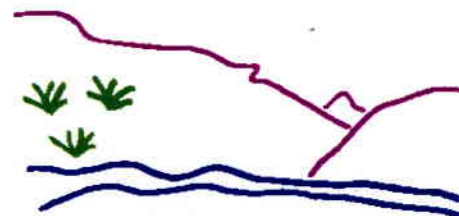
OPERATOR- WOLVERINE G&O CO (N1655)

SEC. 17 T.23S R.1W

FIELD: COVENANT (492)

COUNTY: *Sevier*

SPACING: R649-3-11 / DIRECTIONAL DRILLING



Utah Oil Gas and Mining

Wells

- ✂ GAS INJECTION
- ✂ GAS STORAGE
- ✕ LOCATION ABANDONED
- ⊕ NEW LOCATION
- ⊕ PLUGGED & ABANDONED
- * PRODUCING GAS
- PRODUCING OIL
- ✂ SHUT-IN GAS
- ✂ SHUT-IN OIL
- ✕ TEMP. ABANDONED
- TEST WELL
- ◆ WATER INJECTION
- ◆ WATER SUPPLY
- ◆ WATER DISPOSAL

Units.shp

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields.shp

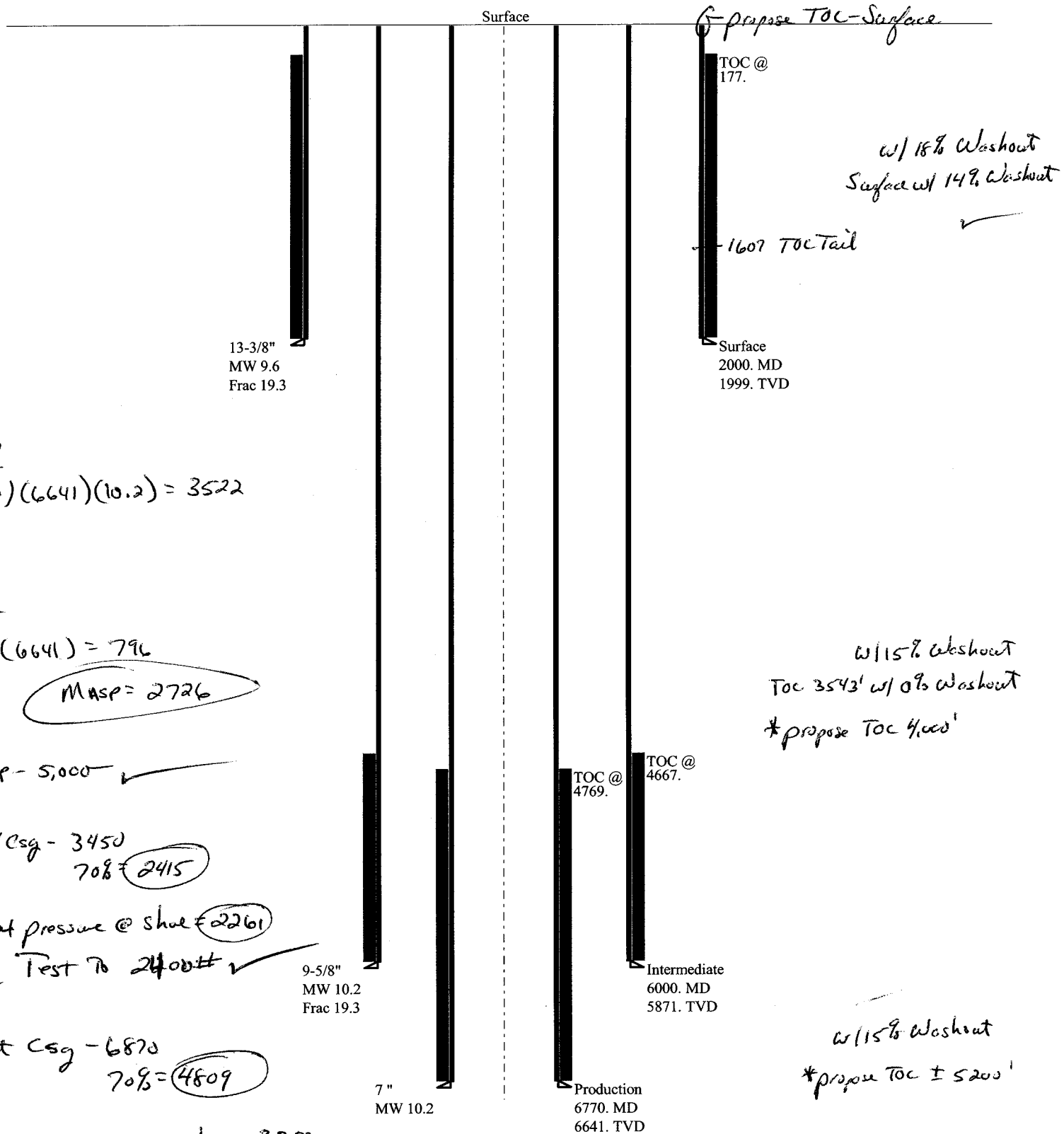
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED



PREPARED BY: DIANA WHITNEY
DATE: 20-APRIL-2005

05-05 Wolverine KMR 17

Casing Schematic



Well name:
Operator: **Wolverine Gas & Oil**
String type: Surface
Location: Sevier County

05-05 Wolverine KMR 17-6

Project ID:
43-041-30040

Design parameters:

Collapse

Mud weight: 9.600 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 103 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft

Cement top: 177 ft

Burst

Max anticipated surface pressure: 1,760 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,000 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 1,715 ft

Directional well information:

Kick-off point 0 ft
Departure at shoe: 40 ft
Maximum dogleg: .16 °/100ft
Inclination at shoe: 2.68 °

Re subsequent strings:

Next setting depth: 5,871 ft
Next mud weight: 10.200 ppg
Next setting BHP: 3,111 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,000 ft
Injection pressure 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	13.375	68.00	J-55	Buttress	1999	2000	12.29	270.1
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	997	1946	1.951	2000	3450	1.73	117	1069	9.17 B

Prepared Clinton Dworshak
by: Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: May 4, 2005
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1999 ft, a mud weight of 9.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name:
Operator: **Wolverine Gas & Oil**
String type: Intermediate
Location: Sevier County

05-05 Wolverine KMR 17-6

Project ID:
43-041-30040

Design parameters:

Collapse

Mud weight: 10.200 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 157 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft

Cement top: 4,667 ft

Burst

Max anticipated surface
pressure: 2,722 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 3,427 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 5,073 ft

Directional well information:

Kick-off point 0 ft
Departure at shoe: 1008 ft
Maximum dogleg: 3.7 °/100ft
Inclination at shoe: 4.19 °

Re subsequent strings:

Next setting depth: 6,641 ft
Next mud weight: 10.200 ppg
Next setting BHP: 3,519 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 5,688 ft
Injection pressure 5,688 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6000	9.625	47.00	N-80	LT&C	5871	6000	8.625	565.5
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3111	4619	1.485	3427	6870	2.00	234	905	3.87 J

Prepared Clinton Dworshak
by: Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: May 4, 2005
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 5871 ft, a mud weight of 10.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

05-05 Wolverine KMR 17-6Operator: **Wolverine Gas & Oil**

String type: Production

Project ID:

43-041-30040

Location: Sevier County

Design parameters:**Collapse**

Mud weight: 10.200 ppg

Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 168 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Cement top: 4,769 ft

Burst

Max anticipated surface

pressure: 2,722 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 3,519 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Directional well information:

Kick-off point 0 ft

Departure at shoe: 1012 ft

Maximum dogleg: 3.7 °/100ft

Inclination at shoe: 0 °

Tension is based on buoyed weight.

Neutral point: 5,745 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6770	7	26.00	N-80	LT&C	6641	6770	6.151	354.9
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3519	5410	1.537	3519	7240	2.06	146	519	3.55 J

Prepared Clinton Dworshak
by: Utah Div. of Oil & Mining

Phone: 801-538-5280

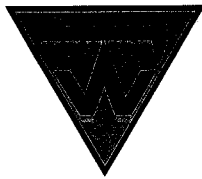
Date: May 4, 2005
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 6641 ft, a mud weight of 10.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.



WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

April 26 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

RECEIVED

APR 2 / 2005

DIV. OF OIL, GAS & MINING

RE: Application for Permit to Drill
Kings Meadows Ranches #17-6
Covenant Field, Sevier County, UT

Dear Ms. Whitney:

The purpose of this letter is to supplement the information originally submitted for the Kings Meadow Ranch 17-6, which we had inadvertently called the Wolverine Federal 17-6 in our original correspondence. Enclosed with this letter is the revised Form 3, which corrects the name reference and the bond number. We have modified the *Project Plan of Development* to include the name of the surface owner and contact information on page 6, as you requested; I have signed this document, as well.

Water used in the drilling operation comes from our produced water from the KMR 17-1 and the Wolverine Federal 17-2, or when we need fresh water, we purchase it from Kings Meadow Ranches. We do not have a water supply well on the well site. A copy of water use permit is attached to this letter.

We are requesting an exception to Rule 649-3-11, *Directional Drilling*. The proposed Kings Meadow Ranch 17-6 is proposed as a directional well because land use considerations and because we wanted to minimize the footprint of our operations. The well will be drilled from the same pad as the previous wells (17-3, 17-4, 17-5 and 8-1). The well will reach the Navajo at a bottom hole location of 1925' FWL and 660' FNL (see map submitted previously). Wolverine Gas & Oil owns the mineral leases for the entire trajectory of the well bore and 460' radius of the wellbore.

If you need anything else, please call.

Sincerely,



Edward A. Higuera
Manager-Development

Encl.

CONFIDENTIAL

001

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECEIVED

APR 2 / 2005

FORM 3

AMENDED REPORT ☒
(highlight changes)

DIV. OF OIL, GAS & MINING

APPLICATION FOR PERMIT TO DRILL

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		5. MINERAL LEASE NO: Private	6. SURFACE: Fee
B. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
2. NAME OF OPERATOR: Wolverine Gas & Oil Company of Utah, LLC		8. UNIT or CA AGREEMENT NAME:	
3. ADDRESS OF OPERATOR: 55 Campau CITY Grand Rapids STATE MI ZIP 49503-2616		PHONE NUMBER: (616) 458-1150	9. WELL NAME and NUMBER: Kings Meadow Ranches #17-6
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1680' FNL & 2217' FWL, Sec. 17 T23S-R01W AT PROPOSED PRODUCING ZONE: 660' FNL & 1925' FWL, Sec. 17 T23S-R01W		10. FIELD AND POOL, OR WILDCAT: Covenant	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 3.5 miles south of Sigurd		12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 500' west	16. NUMBER OF ACRES IN LEASE: 160	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 16' SHL; approx 1500' at BHL	19. PROPOSED DEPTH: 6,770	20. BOND DESCRIPTION: Pending	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5753' KB	22. APPROXIMATE DATE WORK WILL START: 5/18/2005	23. ESTIMATED DURATION: 35 days	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
30"	20 X42 .25" wall	120	conductor
17-1/2"	13-3/8" J55 68 ppf	2,000	Lead: 500 sx hi-fill 3.86 cf/sx 11.0 ppg Tail: 450 sx Prem.G 1.18 cf/sx 15.8 ppg
12-1/4"	9-5/8" N80 47 ppf	6,000	450 sx 50:50 Poz 1.71 cf/sx 13 ppg
8-1/2"	7" N80 26 ppf	6,770	400 sx 50:50 Poz 1.27 cf/sx 14.35 ppg

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- | | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) Edward A Higuera TITLE Manager-Development

SIGNATURE [Signature] DATE 4/26/2005

(This space for State use only)

API NUMBER ASSIGNED:

43-041-36640

APPROVAL:

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 05-09-2005

By: [Signature]

PROJECT
Wolverine Gas & Oil Company of Utah, LLC.

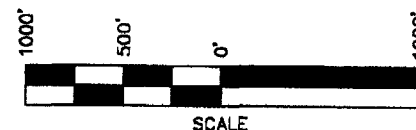
LEGEND

- ✚ = SECTION CORNERS LOCATED
 ≡ = QUARTER SECTION CORNERS LOCATED
 ● = PROPOSED WELL HEAD

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT
THE WOLVERINE FEDERAL #17-8 LOCATION.
LOCATED IN THE SE 1/4 OF THE NW 1/4
OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.
SEVER COUNTY.

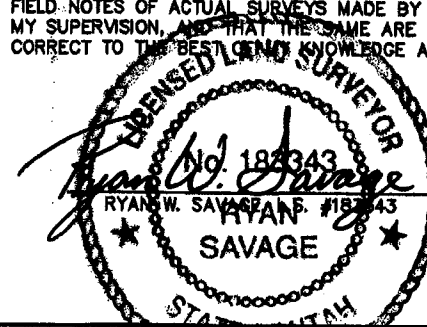
BASIS OF ELEVATION

ELEVATION BASED ON U.S.G.S. BENCH MARK LOCATED IN THE SW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.



CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER
MY SUPERVISION, AND THAT THE SAME ARE TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



3/25/05
DATE

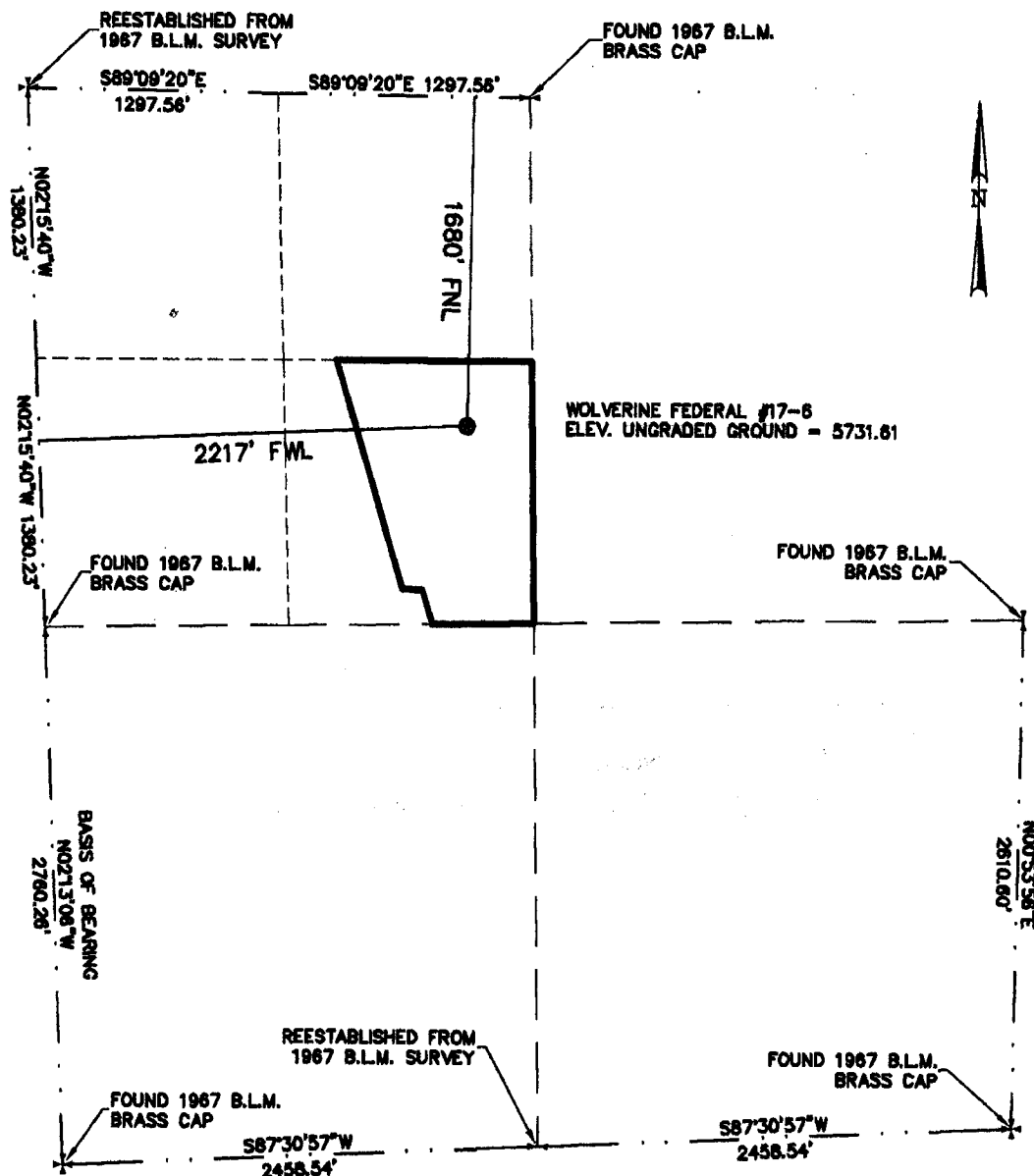


Jones & DeMille Engineering
1535 South 100 West — Richfield, Utah 84701
Phone (435) 898-8266
Fax (435) 898-8268
www.jonesanddemille.com

Well Location Plat for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED T.W.G.	CHECKED R.W.S.	DRAWN K.B.B.	PROJECT NO. 0408-180	SHEET NO. 1
DATE Mar. 2005		DWG. NAME Wells	SCALE 1" = 1000'		



BASIS OF BEARINGS

BASIS OF BEARING USED WAS N02°13'06"W BETWEEN THE SOUTHWEST CORNER AND THE WEST QUARTER CORNER OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.

LATITUDE = 38°48'19.4600" (38.805405556)
LONGITUDE = -111°56'02.8792" (111.934133111)

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

OPERATOR: Wolverine Gas and Oil Company
WELL NAME & NUMBER: Kings Meadow Ranches 17-6
API NUMBER: 43-041-30040
LOCATION: 1/4,1/4 SENW Sec: 17 TWP: 23 S RNG: 1 W 1680 FNL 2217 FWL

Geology/Ground Water:

This location is placed in the High Plateaus section of the Colorado Plateau physiographic province in western central Utah. Some people have characterized this area as being in the Basin and Range - Colorado Plateau transition zone. It is other wise characterized as being astride the Sevier Overthrust Belt. The location is on fee acreage a few miles east of the Sevier River, in the Peterson Creek drainage, a tributary of Brine Creek, which subsequently flows into the Sevier River. The surface owner rancher heavily allocates water for agriculture derived from water rights on some local springs, which arise from the volcanic rocks just to the east.

The well will likely spud into a thin alluvium covering the evaporite-rich Jurassic-age Arapien Shale. The proposal calls for a saturated salt mud system from below the surface casing into the Navajo Sandstone. The quality of any surface water that manages to escape upstream allocation is diminished as it flows past the location and into Brine Creek, owing to the evaporite minerals in the Arapien Shale. Any water contained in the Arapien Shale is also likely to be of poor quality. A Division of Water Rights publication notes that aquifers in close proximity to the Arapien Shale are also likely to contain ground water with high TDS levels. Inasmuch as there do not appear to be any intervening aquifers documented in this area, which lie between the Arapien Shale and the underlying Navajo Sandstone, it is unlikely that any high quality ground water will be encountered.

At this location it is unlikely that any high quality ground water resource will be encountered in the Navajo, at that depth, in any strata drilled below the Navajo or at all. The proposed casing, cementing and drilling fluid program should be sufficient to control and isolate the poor quality ground waters expected to be encountered in a well at this location. Two surface water rights, a point-to-point right and two underground water rights (one filed by the Operator) are found within a mile to the east. The underground water right is for a 156' deep well more than half a mile east.

Reviewer: Christopher J. Kierst **Date:** May 3, 2005

Surface:

The original onsite for this well was held on September 7, 2004. Shaun Burd, Western Land Services, represented Wolverine Gas and Oil, while Ed Bonner was in attendance, representing the possible SITLA royalty interest. Sevier County was invited but chose not to attend this on-site evaluation. Proposed location is ~3.5 miles south of Sigurd, in Sevier County, Utah. Staked location lies east of Highway 24 on Wolverine Gas and Oil Company owned property. Steep hills surround the sagebrush dominated flat from which the well is proposed to be drilled. Access to this well will be along existing Wolverine oil field roads from UDOT maintained roads. No new access road will be built for this location, as it will utilize existing access. The direct area drains to the northwest, into Brine Creek then further west eventually into the Sevier River, a year-round live water source ~2.5 miles northwest of the proposed location. Dry washes run throughout the area. I have visited this location many times performing inspections during the drilling phase of the previously drilled wells (4) on this location. The reserve pit is lined and currently in good condition. Reserve pit volume may become an issue depending on drilling conditions. I have spoken with Steve Hash (Exact Engineering) regarding this issue. If pit volume becomes an issue, due to cuttings, Wolverine will contact the Division for approval and stipulations for enlarging the reserve pit, prior to construction.

Reviewer: Mark L. Jones **Date:** April 25, 2005

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: Wolverine Gas and Oil Company
WELL NAME & NUMBER: Kings Meadow Ranches 17-6
API NUMBER: 43-041-30040
LEASE: Fed FIELD/UNIT: Covenant
LOCATION: 1/4, 1/4 SENW Sec: 17 TWP: 23S RNG: 1W 1680 FNL 2217 FWL
LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4, 1/4 LINE; 920 F ANOTHER WELL.
GPS COORD (UTM): X= 418958 E; Y= 4295403 N SURFACE OWNER: Wolverine.

PARTICIPANTS

Location originally looked at by M. Jones (DOGM), Shaun Burd (Western Land Services), and Ed Bonner (SITLA), on September 7, 2004. This well is in addition the original 4 proposed wells for this pad.

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Proposed location is ~3.5 miles south of Sigurd, in Sevier County, Utah. Staked location lies east of Highway 24 on Wolverine Gas and Oil Company owned property. Steep hills surround the sagebrush dominated flat, from where the well is proposed to be drilled. Access to this well will be along existing Wolverine oil field roads from UDOT maintained roads. No new access road will be built for this location, as it will utilize existing access. The direct area drains to the northwest, into Brine Creek then further west eventually into the Sevier River, a year-round live water source ~2.5 miles northwest of the proposed location. Dry washes run throughout the area.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: 180' x 360' w/ 240' x 100' x 10' (excluded) pit. This well is proposed on an existing pad along with 4 previously drilled wells, no addition disturbance is planned at this time.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 9 proposed, producing, and/or PA wells are within a 1 mile radius of the above proposed well.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: On location and along roadway to production facilities south of 17-1 location.

SOURCE OF CONSTRUCTION MATERIAL: Obtained locally and trucked to site.

ANCILLARY FACILITIES: None anticipated.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN): This well will be drilled on an existing pad consisting of 4 wells, all to be drilled directionally. The pad sits next to a recently drilled vertical well, Kings Meadow Ranches 17-1. Highway 24 runs past

all of this activity, therefore any and all activity associated with these wells can be seen by the public, which may increase public interest and/or concern.

WASTE MANAGEMENT PLAN:

Portable chemical toilets will be emptied into the municipal waste treatment system; garbage cans on location will be emptied into centralized dumpsters, which will be emptied into an approved landfill. Drilling fluid, and completion/frac fluid will be removed from the pit upon completion of the well. Cuttings will be buried in the pit unless oil based mud is used. If oil based mud is used disposal of the cuttings should be discussed with the Division. Used oil from drilling operations and support will be hauled to a used oil recycling facility. Produced water will be disposed of at an approved facility.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Dry washes run throughout the immediate area of the proposed well location.

FLORA/FAUNA: Sagebrush, greasewood, winter-fat, 4-wing salt-brush, deer rodents, fowl.

SOIL TYPE AND CHARACTERISTICS: Rocky clay.

SURFACE FORMATION & CHARACTERISTICS: Arapien Shale

EROSION/SEDIMENTATION/STABILITY: Erosive upon disturbance.

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: Dugout earthen, 240'x100'x10', exterior to location. The existing pit is expected to be sufficient for drilling the 17-6 well. However, if pit volume becomes an issue, due to cuttings, Wolverine will contact The Division for approval and stipulations for enlarging the reserve pit prior to construction.

LINER REQUIREMENTS (Site Ranking Form attached): Liner required.

SURFACE RESTORATION/RECLAMATION PLAN

As per Wolverine.

SURFACE AGREEMENT: Wolverine owns the surface.

CULTURAL RESOURCES/ARCHAEOLOGY: Mountain States Archaeology, 7/13/2004.

OTHER OBSERVATIONS/COMMENTS

I have visited this location many times performing inspections during the drilling phase of the previously drilled wells (4) on this location.

The reserve pit is lined and currently in good condition. Reserve pit volume may become an issue depending on drilling conditions. I have spoke with Steve Hash (Exact Engineering) regarding the issue. If pit volume becomes an issue, due to cuttings, Wolverine will contact The Division for approval and stipulations for enlarging the reserve pit, prior to construction.

ATTACHMENTS

Photos of this location were taken and placed on file.

Mark L. Jones
DOGM REPRESENTATIVE

April 25, 2005 / 2:00 pm
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>10</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>10</u>

Final Score 35 (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required, consider criteria for excluding pit use.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.

Conditions of Approval/Application for Permit to Drill:

1. Maintain the reserve pit liner.
2. If additional reserve pit is needed, contact DOGM for approval and stipulations for enlarging the reserve pit, prior to construction.



State Online Services / Agency List / Business.Utah.gov

Search Utah.gov

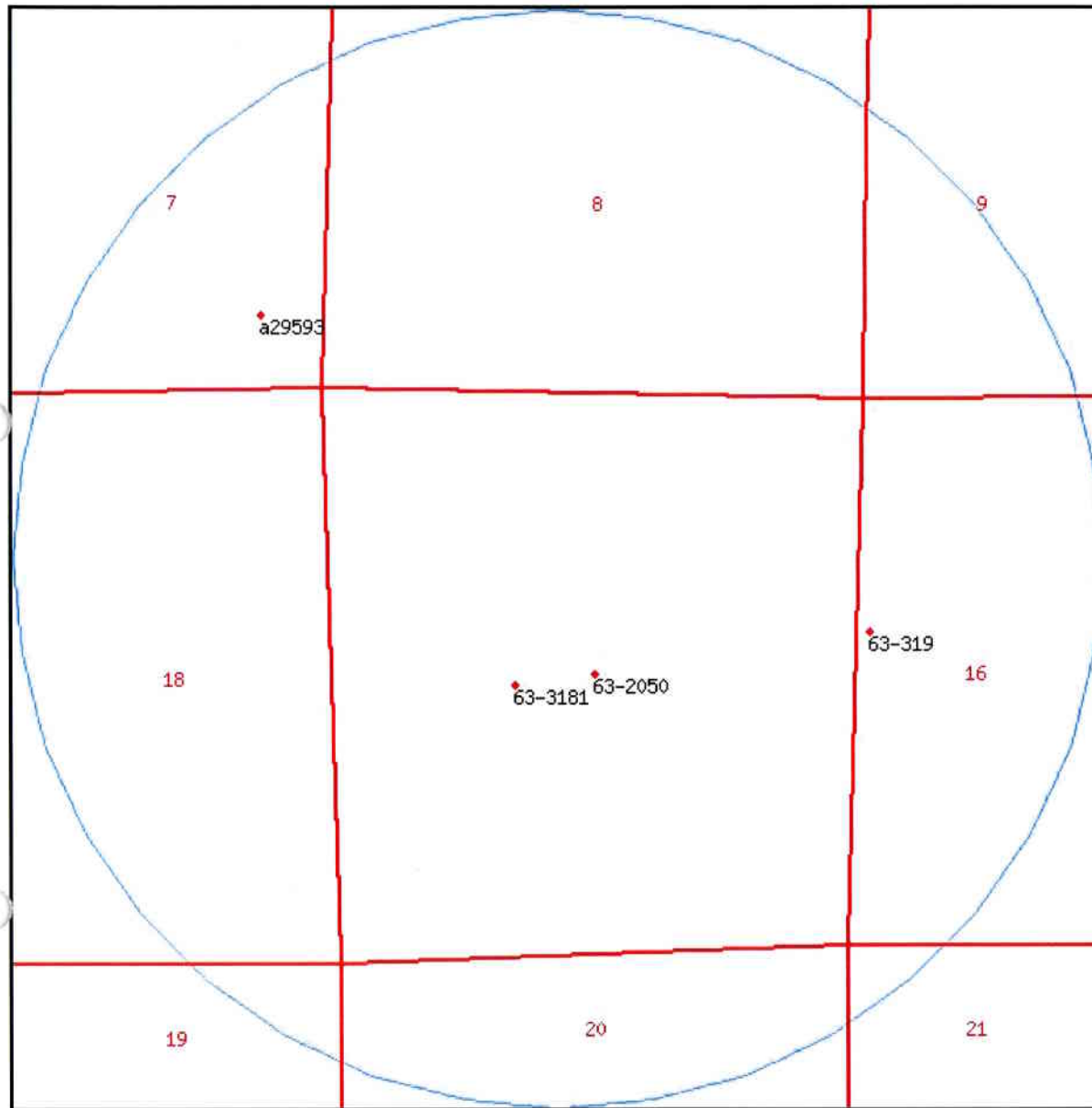
GO

UTAH DIVISION OF WATER RIGHTS

WRPLAT Program Output Listing

Version: 2004.12.30.00 Rundate: 05/03/2005 05:19 PM

Radius search of 5280 feet from a point S1680 E2217 from the NW corner, section 17, Township 23S, Range 1W, SL
b&m Criteria:wrtypes=W,C,E podtypes=all status=U,A,P usetypes=all



0 700 1400 2100 2800 ft

Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
<u>63-2050</u>	Point to Point		P	19030000	OS	0.010	0.000	RICHFIELD DISTRICT USA BUREAU OF LAND MANAGEMENT 150 EAST 900 NORTH
	0 0 17 23S 1W SL							
<u>63-3180</u>	Surface		P	18700000	I	3.160	0.000	G. W. NEBEKER SIGURD UT 84657
	S2900 E1800 NW 17 23S 1W SL							
<u>63-3181</u>	Surface		P	18700000	DS	0.010	0.000	G. W. NEBEKER SIGURD UT 84657
	S2900 E1800 NW 17 23S 1W SL							
<u>63-319</u>	Underground		P	19560121	S	0.015	0.000	A. BRYANT AND J. LLEWELLYN YOUNG RICHFIELD UT 84701
	N330 E100 W4 16 23S 1W SL							
<u>a29593</u>	Underground		A	20041130	IO	0.002	1.000	WOLVERINE GAS AND OIL CORPORATION ONE RIVER FRONT PLAZA
	N660 W660 SE 07 23S 1W SL							

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**State of Utah****Department of
Natural Resources**

MICHAEL R. STYLER
Executive Director

**Division of
Oil, Gas & Mining**

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

May 9, 2005

Wolverine Gas & Oil Company of Utah, LLC
One Riverfront Plaza
55 Campau, NW
Grand Rapids, MI 49503-2616


Re: Kings Meadow Ranches #17-6 Well, 1680' FNL, 2217' FWL, SE NW,
Sec. 17, T. 23 South, R. 1 West, Bottom Location 660' FNL, 1925' FWL,
NE NW, Sec. 17, T. 23 South, R. 1 West, Sevier County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-041-30040.

Sincerely,


for Gil Hunt
Acting Associate Director

pab
Enclosures

cc: Sevier County Assessor
Bureau of Land Management, Moab District Office

Operator: Wolverine Gas & Oil Company of Utah, LLC
Well Name & Number Kings Meadow Ranches #17-6
API Number: 43-041-30040
Lease: Fee

Location: SE NW Sec. 17 T. 23 South R. 1 West
Bottom Location: NE NW Sec. 17 T. 23 South R. 1 West

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

5. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

6. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
7. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



State of Utah

**Department of
Natural Resources**

MICHAEL R. STYLER
Executive Director

**Division of
Oil, Gas & Mining**

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

May 9, 2005
Amended June 1, 2005

Wolverine Gas & Oil Company of Utah, LLC
One Riverfront Plaza
55 Campau, NW
Grand Rapids, MI 49503-2616

Re: Kings Meadow Ranches 17-7 Well, 1680' FNL, 2217' FWL, SE NW, Sec. 17,
T. 23 South, R. 1 West, Bottom Location 2204' FNL, 1059' FWL, SW NW,
Sec. 17, T. 23 South, R. 1 West, Sevier County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-041-30040.

Sincerely,

Gil Hunt
Acting Associate Director

pab
Enclosures

cc: Sevier County Assessor
Bureau of Land Management, Moab District Office

Operator: Wolverine Gas & Oil Company of Utah, LLC
Well Name & Number Kings Meadow Ranches 17-7
API Number: 43-041-30040
Lease: Fee

Location: SE NW **Sec.** 17 **T.** 23 South **R.** 1 West
Bottom Location: SW NW **Sec.** 17 **T.** 23 South **R.** 1 West

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

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4. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

5. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

Page 2
API #43-041-30040
May 9, 2005

6. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached) Refer to Statement of Basis for Kings Meadow Ranches 17-6.

006

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒
(highlight changes)

APPLICATION FOR PERMIT TO DRILL**AMENDED**

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		5. MINERAL LEASE NO: Private	6. SURFACE: Fee
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
2. NAME OF OPERATOR: Wolverine Gas & Oil Company of Utah, LLC		8. UNIT or CA AGREEMENT NAME:	
3. ADDRESS OF OPERATOR: 55 Campau CITY Grand Rapids STATE MI ZIP 49503-2616		PHONE NUMBER: (616) 458-1150	9. WELL NAME and NUMBER: Kings Meadow Ranches 17-7
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1680' FNL & 2217' FWL, Sec 17 T23S - R01W AT PROPOSED PRODUCING ZONE: 515' S & 905' W of SHL (irregular section) 2204' FNL & 1059' FWL, Sec 17 T23S - R01W		10. FIELD AND POOL, OR WILDCAT: Covenant	
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 17 23S 01W		12. COUNTY: Sevier	
13. STATE: UTAH		14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 3.5 miles S of Sigurd, UT	
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 500' west	16. NUMBER OF ACRES IN LEASE: 160	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 16' SHL; approx 750' east	19. PROPOSED DEPTH: 6,840	20. BOND DESCRIPTION: Pending	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5753' KB	22. APPROXIMATE DATE WORK WILL START: 5/31/2005	23. ESTIMATED DURATION: 20 days	

24.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
30"	20 X42 .25 wall	123	conductor cmtd
17-1/2"	13-3/8" J55 61 ppf	2,000	HiFill 600sx lead 3.96 cfps 11 ppg
			Prem G 475sx tail 1.18 cfps 15.6 ppg
12-1/4"	9-5/8" N80 47 ppf	5,950	50:50 POZ 450sx 1.71 cfps 13 ppg
8-1/2"	7" N80 26 ppf	6,840	50:50 POZ 400sx 1.27 cfps 14.35 ppg

25.

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- | | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) Steven R. Hash - Consulting Engineer

TITLE EXACT Engineering Inc (918) 599-9400

SIGNATURE

Steven R. Hash

DATE 5/30/2005

(This space for State use only)

API NUMBER ASSIGNED:

43-041-30040

APPROVAL:

**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**
DATE: 6-01-05
BY: *[Signature]*

CONFIDENTIAL

Section 17, T.23 S., R.1 W., S.L.B. & M.

PROJECT Wolverine Gas & Oil Company of Utah, LLC.

WELL LOCATION, LOCATED AS SHOWN IN THE SE 1/4 OF THE
NW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.
SEVIER COUNTY, UTAH

LEGEND

- ✦ - SECTION CORNERS LOCATED
- - QUARTER SECTION CORNERS LOCATED
- - PROPOSED WELL HEAD

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT
THE WOLVERINE FEDERAL #17-6 LOCATION.
LOCATED IN THE SE 1/4 OF THE NW 1/4
OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.
SEVIER COUNTY.

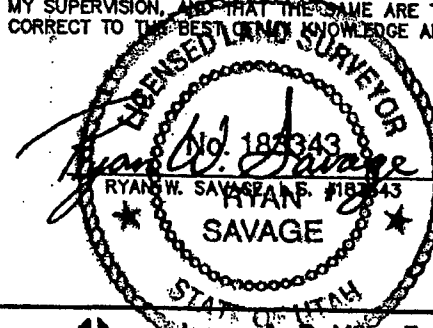
BASIS OF ELEVATION

ELEVATION BASED ON U.S.G.S. BENCH MARK LOCATED IN
THE SW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.



CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER
MY SUPERVISION, AND THAT THE SAME ARE TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



3/25/05
DATE

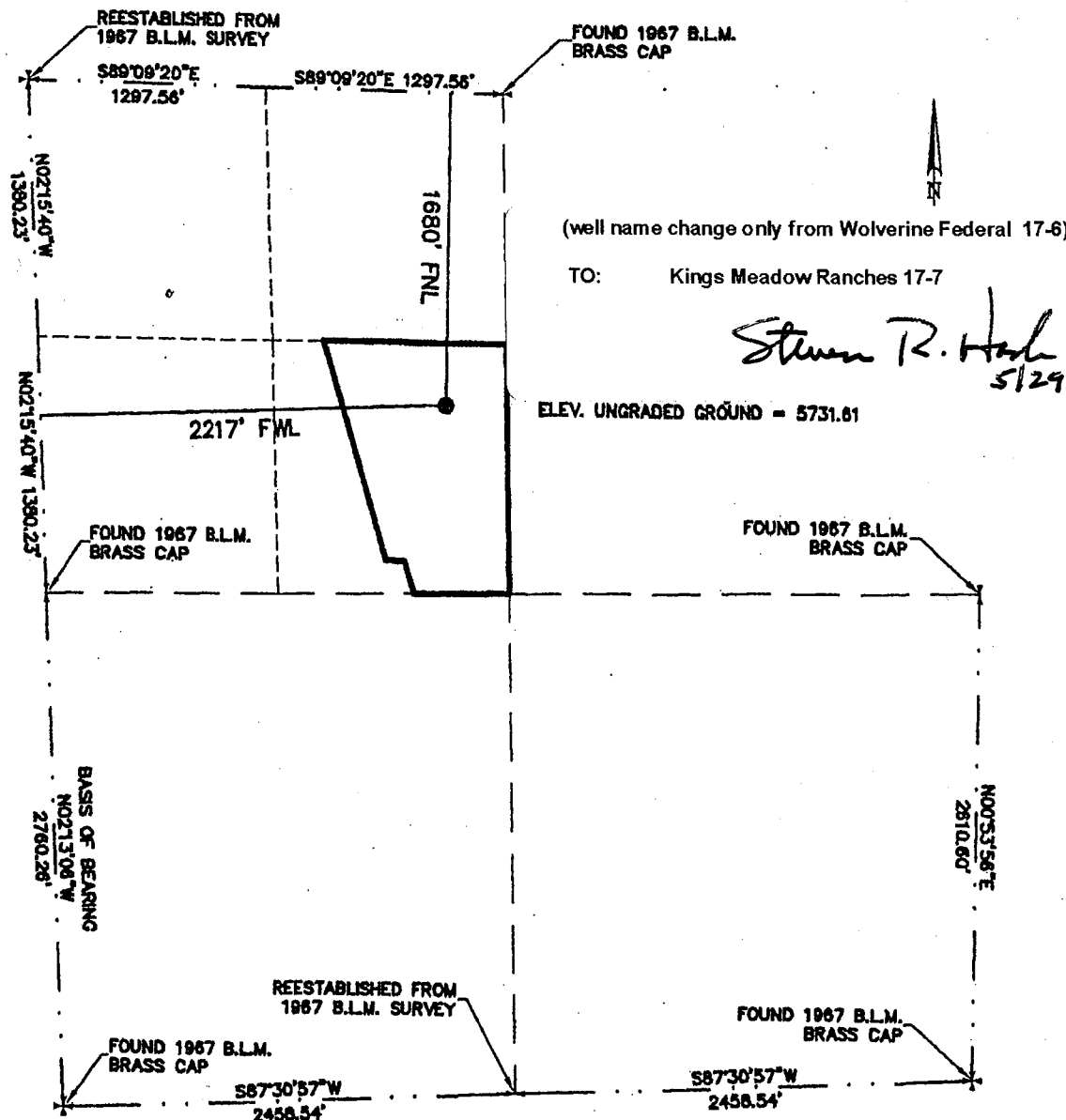


Jones & DeMille Engineering
1535 South 100 West - Richfield, Utah 84701
Phone (435) 896-8266
Fax (435) 896-8268
www.jonesanddemille.com

Well Location Plat for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED	CHECKED	DRAWN	PROJECT NO.	SHEET NO.
	T.W.G.	R.W.S.	K.B.B.		
DATE		DWG NAME	SCALE		
Mar. 2005		Wells	1" = 1000'	0406-160	1



(well name change only from Wolverine Federal 17-6)

TO: Kings Meadow Ranches 17-7

Steven R. Hark
5/29/05

ELEV. UNGRADED GROUND = 5731.61

BASIS OF BEARINGS

BASIS OF BEARING USED WAS N02°13'06"W BETWEEN THE SOUTHWEST CORNER
AND THE WEST QUARTER CORNER OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.

LATITUDE = 38°48'19.4600" (38.805405556)
LONGITUDE = -111°56'02.8792" (111.934133111)

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

DRILLING PROGNOSIS

Kings Meadow Ranches # 17-7
NE NW SEC 17-T23S-R1W
SEVIER CO., UTAH

BRIEF DRILLING PLAN

Due to surface topography constraints, directionally drill a 6800' MD (6684'TVD) test of the Navajo 1 formation on a day work contract basis from Wolverine's present work area known as Drill Pad A-2 (f) located in SE NW of Sec 17 T23S – R01W, Sevier Co, UT. Please refer to the directional drilling plan attached for detailed hole angle, trajectory and target information. Deviation is the primary drilling concern in this area. No abnormal pressure or hydrogen sulfide gas is expected, however, an H2S detector will be utilized. The projected surface and bottomhole locations are to be as follows:

Surface Location: 1680' fnl & 2217' fwl of Sec 17 T23S – R01W
BHL @ top of NVJO1 (6073' TVD) 515' S & 905' W of SHL in Sec 17 T23S – R01W

20" conductor casing will be cemented to surface at approximately 120 ft BGL. 13-3/8" surface csg will be set & cemented to surface in a 17-1/2" hole deviated to approximately 13 deg at +/- 2000' MD (+/- 1985' TVD). A 12-1/4" hole will then be drilled to +/- 5950' MD (5830' TVD) maintaining an approximate 13 deg tangent section to 5500' then dropping angle to 5 deg by 5950'. 9-5/8" protective casing will be set from surface to TD & cemented over the lower 1000'. An 8-1/2" hole will then be drilled near vertical to +/- 6800' (6684' TVD). 7" production casing will be run from TD back to surface & cemented to approximately 800' into the 9-5/8" protective casing.

EMERGENCY NUMBERS

Sevier Valley Medical Center	(435)-896-8271
Medical Helicopter	(800)-453-0120
Sheriff Department	(435)-896-2600
Fire Department-Richfield, UT	(435)-896-5479
Bureau of Land Management (Richfield):	(435)-896-1500
Bureau of Land Management (Salt Lake City)	(801) 539-4045
Utah Division of Oil, Gas and Mining (Salt Lake City):	(801)-538-5340

Kings Meadow Ranches #17-7 (A2f) (ver1 2005.05.30)
Section 17 T23S-R1W
Sevier Co.,UT

United States Bureau of Land Management

Contact Al McKee (801) 539-4045 24 hrs prior to spudding

Utah Division of Oil, Gas and Mining

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

GENERAL INFORMATION

OBJECTIVE: Navajo 1 @ 6073' (TVD) **ELEVATION:** 5736' GL (actual) 5753' KB
PROJECTED TOTAL DEPTH: 6800' MD; 6684' TVD
SURFACE LOCATION: 1680' FNL & 2217' FWL
Section 17-23S-1W
COUNTY: Sevier **STATE:** Utah
DIRECTIONS TO LOCATION: From the town of Sigurd, Utah go south
approximately 3.5 miles on Hwy #24 to location on
the left side of the road.

PROPOSED CASING PROGRAM:

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth Set
30"	20"	.25 wall	X42	PE welded	120'
17-1/2"	13-3/8"	68#	J-55	BTC	0'-2000'
12-1/4"	9-5/8"	* 47#	N-80	LTC	0'-5950'
8-1/2"	7"	** 26#	N-80	LTC	0'-6800'

* due to availability 47# HCP-110 may be substituted for N80

** due to availability 23# HCP-110 may be substituted for 26# N80

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
30"	20"	Conductor	Na			
17-1/2"	13-3/8"	12.259	14.375	.6946	1.0982	.8406
12-1/4"	9-5/8"	8.525	10.625	0.3127	0.4659	0.4340
8-1/2"	7"	6.250	7.656	.1268	.1438	.2148

GEOLOGIC FORMATIONS:

Formation	Interval (TVD)	Interval (MD)	Lithology	Prod	Abnormal Psi
Arapien	Surf - 5680'	Surf - 5794'	sh, siltstone, salt, evaporites		
TwinCreek1	5680' - 6073'	5794' - 6188'	Carbonates	X	
Navajo 1	6073' - 6684'	6188' - 6800'	Sandstone w/ minor shale	X	
Total Depth	6684'	6800'			

CONSTRUCTION OF SURFACE LOCATION

360' x 180' Pad
150' x 100' x 10' Reserve Pit with a 12 mil synthetic liner
96" diameter tin horn cellar, 10' deep.
Flare pit a minimum of 100' from wellhead.

SURFACE HOLE: 120' to 2000'

Directionally drill a 17-1/2" hole with a PDC bit, mud motor & MWD equipment to approximately 2000' using salt mud system from prior well (make hole to fit 13-3/8" casing). Loss circulation could be a problem in this interval and, if such occurs, begin pumping LCM sweeps. If loss circulation cannot be healed with ± 25 ppb LCM, consider dry drilling (no returns). Maintain hole angle and direction in keeping with the attached directional plan.

PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE

Bottom to Top

20" 2M x 20" SOW flange
20" 2M x 20" 2M mud cross w/ (2) 7-1/16" 2M side outlets
one outlet 7-1/16" HCR valve w/ 6" blooie line to mud separator & flare pit
one outlet (blank)
20" drilling nipple with fillup line and 10-3/4" flow line w/ flowline valve
20" rotating head
Upper kelly cock valves with handles available
Safety valves and subs to fit all drill string connections in use
Inside BOP or float sub available

MUD PROGRAM FOR SURFACE HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
-------	------------	------	------	------------

Kings Meadow Ranches #17-7 (A2f) (ver1 2005.05.30)
Section 17 T23S-R1W
Sevier Co., UT

120 -2000' 9.6 – 10.2 Salt mud 40-55 N/C
Note: Sweep hole every 100 – 200 feet or as needed for hole cleaning. Maintain maximum flowrates for hole cleaning. Use salt gel and FlowZan polymer to maintain properties.

CASING PROGRAM FOR SURFACE HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
120 - 2000'	13-3/8"	2000'	61#	J-55	LT&C	

Casing Running Sequence:

guide shoe, 1 jt of 13-3/8" 61# J55 LT&C, Float collar, balance of 13-3/8" 61# J55 LT&C, centralizers as reqd. RU cement co., hold safety meeting, test lines, cement 13-3/8" casing per cement company recommendation and the cementing guide below. Displace with fresh water or mud.

CEMENTING PROGRAM FOR SURFACE HOLE

Lead:

600 sx hi-fill

Mixed at: 11.0 ppg
Yield: 3.86 ft³/sx

Tail: 470 sx Premium G

Mixed at: 15.8 ppg
Yield: 1.18 ft³/sx

MUST CIRCULATE CEMENT TO SURFACE If the cement does **not** circulate to surface contact the BLM and UDOGM office for further instructions and remedial actions. Top out with premium cement regardless of circulation.

WOC A TOTAL OF 24 HOURS:

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off conductor and weld on a 13-5/8" 5M x 13-3/8" SOW casing head w/ MBS spool configured to hang both 9-5/8" and 7" csg strings without nipping down BOPE. NU a 13-5/8" 5M double ram BOP w/ 5M annular and 5M choke manifold rigged to mud/gas separator, mud tanks and flare pit.

PROTECTIVE CASING HOLE: 2000' to 5950'

Trip in the hole with a 12-1/4" bit, mud motor, MWD & BHA. Drill float, shoe and 20' of new hole. Perform a formation integrity test to 10.5 ppg mud weight equivalent. Directionally drill a 12-1/4" hole with a PDC and/or a TCI rock bit, mud motor, MWD & BHA to approximately 5950' MD using same salt mud system as above. Loss circulation, moving salt, gypsum and anhydrite stringers may be a problem in this interval. Maintain hole angle and azimuth in keeping with the attached directional plan. Protective casing should be set into the top of the Twin Creek formation approximately 100-150'.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PROTECTIVE CASING STRING

Bottom to Top (see attached 5M BOP diagram)

13-5/8" 5M x 13-3/8" SOW casing head w/ (2) 2-1/16" SSO's (for 9-5/8")
13-5/8" 5M x 13-5/8" 5M multi-bowl casing spool (for 7")
13-5/8" 5M x 13-5/8" spacer spool
13-5/8" 5M x 13-5/8" 5M mud cross with (2) side outlets:
 one outlet 2-1/16" 5M kill line
 one outlet 3-1/16" 5M choke line
13-5/8" 5M double ram BOP w/ 5" pipe rams top & CSO rams btm
13-5/8" 5M Annular Preventer
13-5/8" 5M rotating head
 Connect BOP to choke manifold with pressure guage
 Upper kelly cock valves with handles available
 Safety valves and subs to fit all drill string connections in use
 Inside BOP or float sub available

Testing Procedure:

Annular Preventer

The annular preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week.

Blowout Preventer

The BOP, choke manifold and related equipment will be pressure tested to 4500 psi, or 70% of the internal yield of the casing. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum limits specified in Onshore Oil & Gas Order Number 2 (only nitrogen gas may be used to pre-charge).

Choke Manifold Equipment, Valves and Remote Controls

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub structure. The hydraulic BOP closing unit will be located at least twenty-five feet from the well head but readily accessible to the driller.

A flare line will be installed after the choke manifold, extending 100 feet from the center of the drill hole to a separate flare pit.

MUD PROGRAM FOR PROTECTIVE CASING HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
2000' – 5950'	9.8 – 10.5	Salt Mud	36 - 50	NC

Maintain a salt mud system as salt and gypsum sections are drilled. If loss circulation becomes a problem use LCM sweeps to control seepage & clean hole.

CASING PROGRAM FOR PROTECTIVE CASING HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
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Kings Meadow Ranches #17-7 (A2f) (ver1 2005.05.30)
Section 17 T23S-R1W
Sevier Co.,UT

0' – TD' 9-5/8" 5950' * 47# N-80 LT&C

Rig up casing tools and run 9-5/8" protective casing as follows:

Float shoe, 2 joint of 9-5/8" * 47.0# N-80 LT&C casing, float collar, 6 centralizers,
middle shoe joint and one every other joint for 12 jts, run balance of 9-5/8" 47# N-80
* due to availability 47# HCP-110 may be substituted

CEMENT PROGRAM FOR PROTECTIVE CASING

350 sx 50:50 POZ

Weight: 13.0 ppg
Yield: 1.71 ft³/sx

TOC at ~ 5000'; Calculate cement volume based on gauge hole plus 30% excess.
Displace with mud. Land 9-5/8" csg with casing mandrel. Lay down landing joint.
Clean pits and prepare for next hole section.

PRODUCTION HOLE: 5,950 to 6800'

Trip in the hole with an 8-1/2" insert bit, mud motor & MWD. Drill float, shoe and 20' of new hole.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PRODUCTION CASING STRING

Same as Protective String above due to utilization of Multi-Bowl Casing Head Assembly –
Land 9-5/8" through BOPE with casing mandrel, release, test & proceed to drilling
production hole section – Nipple down & nipple up NOT required – all BOPE remains
intact – normal periodic pressure testing remains on schedule

MUD PROGRAM FOR PRODUCTION HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	pH	FLUID LOSS
5950' - 6800'	8.3 – 9.0	LC Polymer	34-50	9.0-10.0	10cc or Less

EVALUATION PROGRAM FOR PRODUCTION HOLE

At TD, circulate and condition hole clean for logs. Short trip to the intermediate casing monitoring well closely. TOH for logs. Run Induction tool as run #1 to determine hole conditions for logging. Adjust tool configurations depending on hole condition.
Mudlogger: From 2000' to total depth.

Electric Logs:

<u>Tool</u>	<u>PCP to TD</u>
SDL/DSN/GR (DSN PCP to surface casing)	Yes
HRI/GR/SP (DLL/MSFL/SP/GR available if brine system)	Yes
EMI	Yes
NMR	Yes

DST: none planned

Cores: none planned

CASING PROGRAM FOR PRODUCTION HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0' - TD'	7"	6800'	* 26#	N-80	LT&C	

* due to availability 23# HCP-110 may be substituted for 26# N-80

Rig up casing tools and run 7" production casing as follows:

Float shoe, 1 joint of 7" 26# N-80 LT&C casing, Float collar, Run balance of 7" 26# N80.

CEMENT PROGRAM FOR PRODUCTION CASING

400 sx (50:50) POZ Premium
2 % Bentonite
Friction reducer, salt & flocele

Weight: 14.35 ppg
Yield: 1.27 ft³/sx

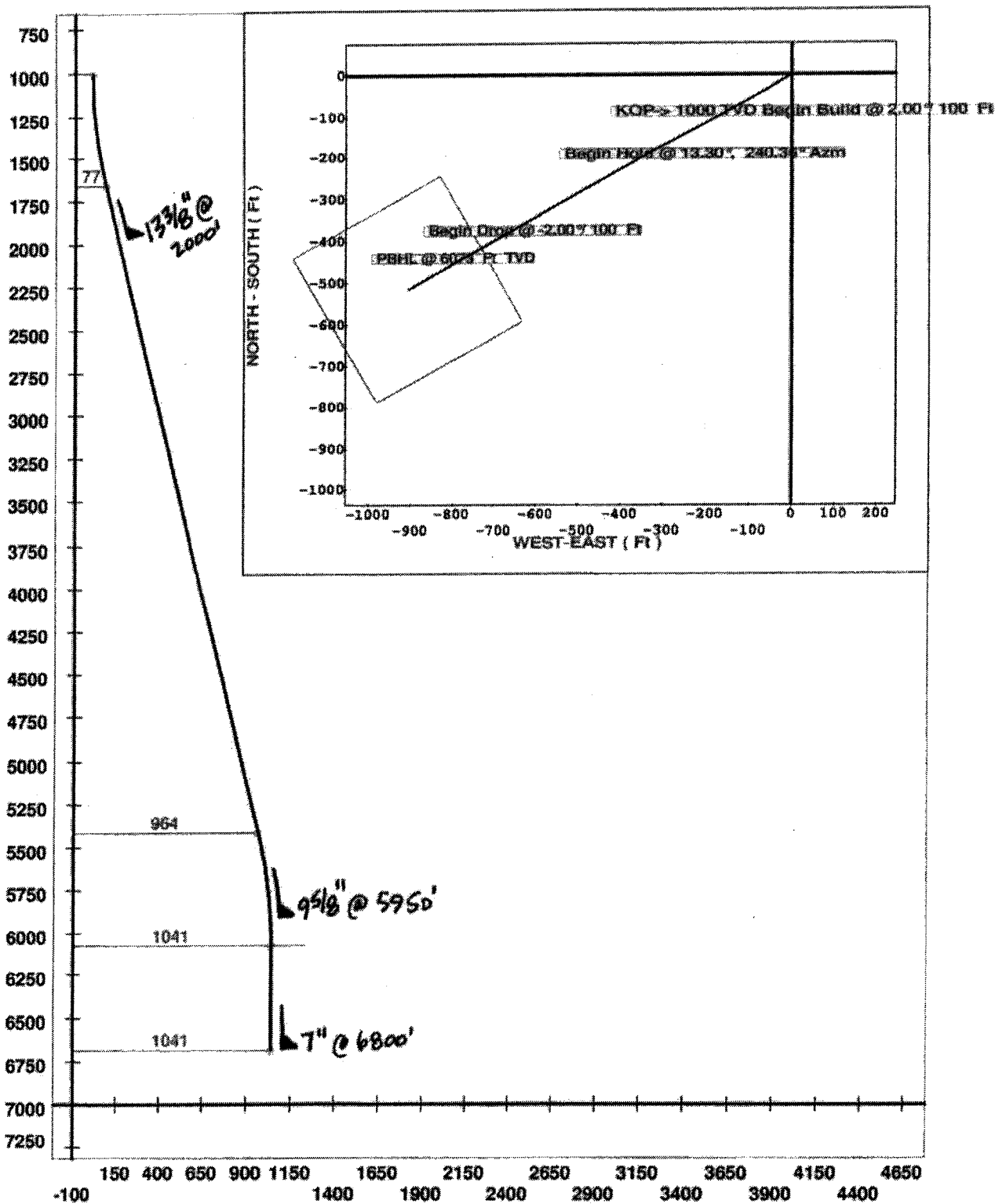
TOC at \pm 5200 ft in 9-5/8" csg; Calculate cement volume based on log caliper +/- 25%.
Displace cement w/water. Hang 85-90% casing weight in slips, ND, cut off, install B-section and night cap. Clean pits and release rig.

SCHEDULE

Location preparation is presently scheduled to begin on or about existing
Drilling operations are anticipated to begin on or about May 31, 2005

end

Company: Wolverine Gas & Oil Co of Utah, LLC
 Lease/Well: Kings Meadow Ranches 17-7
 Location: NW/4 Sec 17 T23S R01W
 State/Country: Sevier Co, UTAH



VERTICAL SECTION (Ft) @ 240.36°



Job Number: [] State/Country: Sevier Co, UTAH
Company: Wolverine Gas & Oil Co of Utah, LLC Declination: []
Lease/Well: Kings Meadow Ranches 17-7 Grid: []
Location: NW/4 Sec 17 T23S R01W File name: C:\WINSERVE\SURVEYS\KMR17-7P.SVY
Rig Name: [] Date/Time: 30-May-05 / 22:19
RKB: [] Curve Name: Interpolated from: []
G.L. or M.S.L.: []

Interpolated from: []

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 240.36
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
1000.00	.00	.00	1000.00		.00	.00	.00	.00	.00	.00	-90.00
1100.02	2.00	240.36	1100.00	100.02	1.75	-.86	-1.52	2.00	2.00	-119.62	.00
1200.16	4.00	240.36	1200.00	100.14	6.99	-3.46	-6.08	2.00	2.00	.00	.00
1300.55	6.01	240.36	1300.00	100.39	15.75	-7.79	-13.69	2.00	2.00	.00	.00
1401.31	8.03	240.36	1400.00	100.76	28.06	-13.88	-24.39	2.00	2.00	.00	.00
1502.57	10.05	240.36	1500.00	101.26	43.97	-21.75	-38.22	2.00	2.00	.00	.00
1604.48	12.09	240.36	1600.00	101.90	63.54	-31.42	-55.22	2.00	2.00	.00	.01
1707.08	13.30	240.36	1700.00	102.61	86.52	-42.79	-75.20	1.18	1.18	.00	.00
1809.84	13.30	240.36	1800.00	102.76	110.16	-54.48	-95.74	.00	.00	.00	.00
1912.60	13.30	240.36	1900.00	102.76	133.79	-66.17	-116.28	.00	.00	.00	.00
2015.35	13.30	240.36	2000.00	102.76	157.43	-77.86	-136.83	.00	.00	.00	.00
2118.11	13.30	240.36	2100.00	102.76	181.07	-89.56	-157.37	.00	.00	.00	.00
2220.86	13.30	240.36	2200.00	102.76	204.71	-101.25	-177.92	.00	.00	.00	.00
2323.62	13.30	240.36	2300.00	102.76	228.35	-112.94	-198.46	.00	.00	.00	.00
2426.38	13.30	240.36	2400.00	102.76	251.99	-124.63	-219.01	.00	.00	.00	.00
2529.13	13.30	240.36	2500.00	102.76	275.63	-136.32	-239.55	.00	.00	.00	.00
2631.89	13.30	240.36	2600.00	102.76	299.26	-148.01	-260.10	.00	.00	.00	.00
2734.64	13.30	240.36	2700.00	102.76	322.90	-159.70	-280.64	.00	.00	.00	.00
2837.40	13.30	240.36	2800.00	102.76	346.54	-171.39	-301.19	.00	.00	.00	.00
2940.16	13.30	240.36	2900.00	102.76	370.18	-183.09	-321.73	.00	.00	.00	.00
3042.91	13.30	240.36	3000.00	102.76	393.82	-194.78	-342.28	.00	.00	.00	.00
3145.67	13.30	240.36	3100.00	102.76	417.46	-206.47	-362.82	.00	.00	.00	.00
3248.42	13.30	240.36	3200.00	102.76	441.09	-218.16	-383.37	.00	.00	.00	.00
3351.18	13.30	240.36	3300.00	102.76	464.73	-229.85	-403.91	.00	.00	.00	.00
3453.93	13.30	240.36	3400.00	102.76	488.37	-241.54	-424.46	.00	.00	.00	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
3556.69	13.30	240.36	3500.00	102.76	512.01	-253.23	-445.00	.00	.00	.00	.00
3659.45	13.30	240.36	3600.00	102.76	535.65	-264.92	-465.55	.00	.00	.00	.00
3762.20	13.30	240.36	3700.00	102.76	559.29	-276.62	-486.09	.00	.00	.00	.00
3864.96	13.30	240.36	3800.00	102.76	582.92	-288.31	-506.64	.00	.00	.00	.00
3967.71	13.30	240.36	3900.00	102.76	606.56	-300.00	-527.18	.00	.00	.00	.00
4070.47	13.30	240.36	4000.00	102.76	630.20	-311.69	-547.72	.00	.00	.00	.00
4173.23	13.30	240.36	4100.00	102.76	653.84	-323.38	-568.27	.00	.00	.00	.00
4275.98	13.30	240.36	4200.00	102.76	677.48	-335.07	-588.81	.00	.00	.00	.00
4378.74	13.30	240.36	4300.00	102.76	701.12	-346.76	-609.36	.00	.00	.00	.00
4481.49	13.30	240.36	4400.00	102.76	724.75	-358.45	-629.90	.00	.00	.00	.00
4584.25	13.30	240.36	4500.00	102.76	748.39	-370.14	-650.45	.00	.00	.00	.00
4687.01	13.30	240.36	4600.00	102.76	772.03	-381.84	-670.99	.00	.00	.00	.00
4789.76	13.30	240.36	4700.00	102.76	795.67	-393.53	-691.54	.00	.00	.00	.00
4892.52	13.30	240.36	4800.00	102.76	819.31	-405.22	-712.08	.00	.00	.00	.00
4995.27	13.30	240.36	4900.00	102.76	842.95	-416.91	-732.63	.00	.00	.00	.00
5098.03	13.30	240.36	5000.00	102.76	866.58	-428.60	-753.17	.00	.00	.00	.00
5200.78	13.30	240.36	5100.00	102.76	890.22	-440.29	-773.72	.00	.00	.00	.00
5303.54	13.30	240.36	5200.00	102.76	913.86	-451.98	-794.26	.00	.00	.00	.00
5406.30	13.30	240.36	5300.00	102.76	937.50	-463.67	-814.81	.00	.00	.00	.00
5509.05	13.30	240.36	5400.00	102.76	961.14	-475.37	-835.35	.00	.00	.00	-180.00
5611.50	11.54	240.36	5500.00	102.45	983.38	-486.37	-854.69	1.72	-1.72	.00	180.00
5713.22	9.50	240.36	5600.00	101.72	1001.96	-495.55	-870.83	2.00	-2.00	.00	-180.00
5814.33	7.48	240.36	5700.00	101.11	1016.89	-502.94	-883.81	2.00	-2.00	.00	180.00
5914.98	5.47	240.36	5800.00	100.65	1028.24	-508.55	-893.67	2.00	-2.00	.00	180.00
6015.29	3.46	240.36	5900.00	100.31	1036.04	-512.41	-900.46	2.00	-2.00	.00	-180.00
6115.39	1.46	240.36	6000.00	100.10	1040.34	-514.54	-904.19	2.00	-2.00	.00	180.00
6215.39	.00	240.36	6100.00	100.01	1041.27	-515.00	-905.00	1.46	-1.46	.00	.00
6315.39	.00	240.36	6200.00	100.00	1041.27	-515.00	-905.00	.00	.00	.00	.00
6415.39	.00	240.36	6300.00	100.00	1041.27	-515.00	-905.00	.00	.00	.00	.00
6515.39	.00	240.36	6400.00	100.00	1041.27	-515.00	-905.00	.00	.00	.00	.00
6615.39	.00	240.36	6500.00	100.00	1041.27	-515.00	-905.00	.00	.00	.00	.00
6715.39	.00	240.36	6600.00	100.00	1041.27	-515.00	-905.00	.00	.00	.00	180.00
6800.00	.00	240.36	6684.61	84.61	1041.27	-515.00	-905.00	.00	.00	.00	180.00

MD
5794
6188
6451
6616
6800

TVD
5680 (1) Twin Creek
6073 (2) NVSO
6236 (3) OWC
6700 (4) TD
6684 use TD

Casing
13 3/8 @ 2015' MD
9 5/8 @ 5950' MD
7" @ 6800' MD

MB
5/29/05

PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Kings Meadow Ranches # 17-7

5M BOP Stack --- to be utilized while drilling holes for protective and production casings thru lower Arapien, Twin Creek & Navajo intervals

Max. anticipated surface pressure 3000 psi

Annular B.O.P. 13-5/8" - 5M WP

B.O.P. 5" pipe Rams 13-5/8" - 5M W.P.
(Pipe/Blind)

B.O.P. blind Rams 13-5/8" - 5M W.P.
(Pipe/Blind)

Check Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 3-1/16" 5M WP

Valve 3-1/16" 5M WP

Kill Line Manifold

Manifold Line

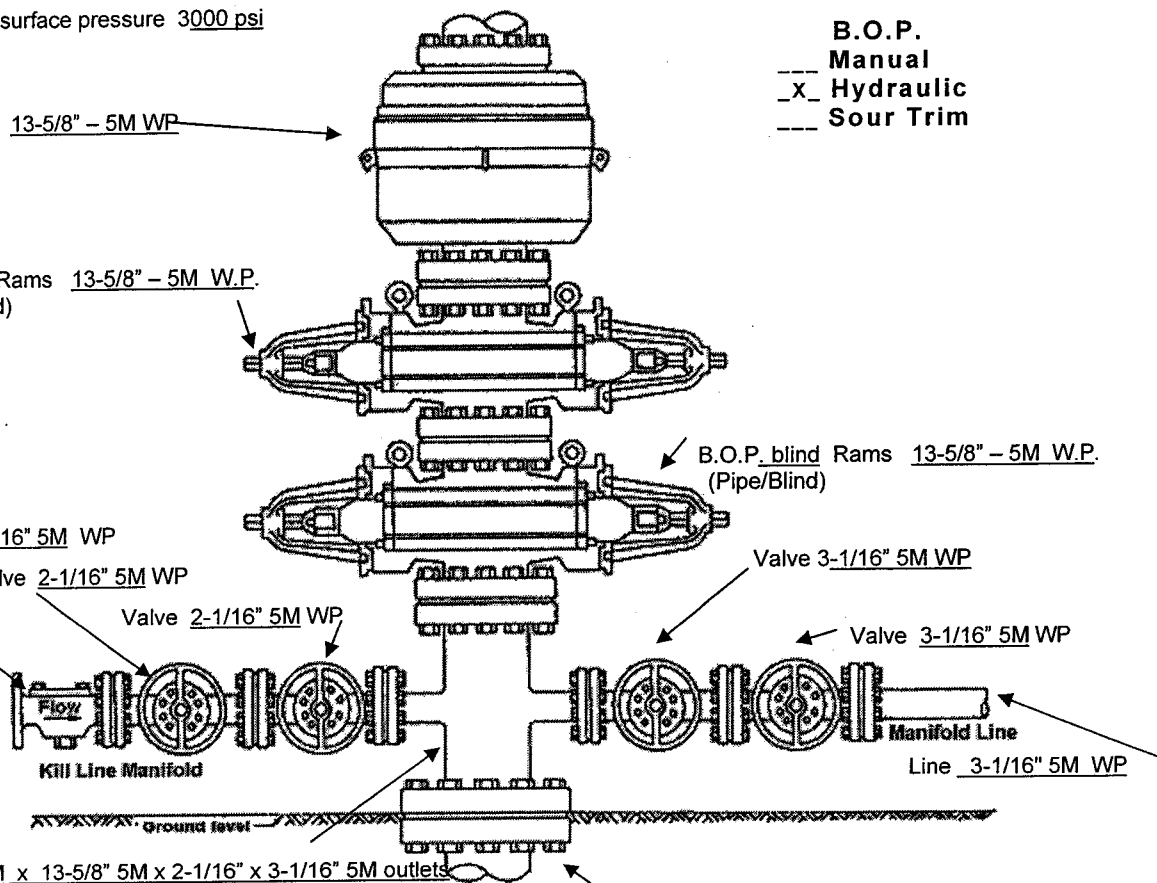
Line 3-1/16" 5M WP

Ground level

Spool 13-5/8" 5M x 13-5/8" 5M x 2-1/16" x 3-1/16" 5M outlets

Wellhead 13-5/8" 5M x 13-5/8" 5M multibowl
w/ 13-5/8" 5M x 13-3/8" 5M SOW csg head

B.O.P.
Manual
☒ Hydraulic
Sour Trim



From: "Steven R Hash" <stevehash@exactengineering.com>
To: "Dustin Doucet" <dustindoucet@utah.gov>, "Al McKee" <al_mckee@blm.gov>
Date: 5/31/2005 1:22:13 AM
Subject: Kings Meadow Ranches 17-6 (name chg to KMR 17-7)

Gentlemen,

Wolverine desires to drill the well permitted as the Kings Meadow Ranches 17-6. Since this well name was utilized recently for the sidetrack of the Wolverine Federal 8-1 (Kings Meadow Ranches 17-6 (WF 8-1)) a well name change is therefore in order. Additionally the BHL is being revised. To affect these requested changes please find attached for your review, DRAFT copies of the following:

- 1) cover letter & explanation
- 2) Sundry Notice to amend well name & BHL
- 3) amended APD
- 4) amended surveyor's plat
- 5) revised drilling prognosis & directional plan

Final copies are being sent via express mail on Tuesday, May 31, 2005. Please call if there any questions. Thank you

Steve

Steven R. Hash

EXACT Engineering, Inc.

415 S. Boston, Suite 734

Tulsa, OK 74103

ofc (918) 599-9400 ofc fax (918) 599-9401

direct (918) 599-9801 mobil fax (801) 640-7470

stevehash@exactengineering.com <mailto:stevehash@exactengineering.com>

www.exactengineering.com <http://www.exactengineering.com>

Petroleum Engineering Consulting and Field Services

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to be reviewed by only the individual or organization named in the e-mail address. If you are not the intended

recipient, you are hereby notified that any review, dissemination or copying of this e-mail and attachments, if any, or the information contained herein, is strictly prohibited

CC: "Edward Higuera" <EHiguera@wolvgas.com>, "Richard Moritz" <rmoritz@wolvgas.com>, "John Vrona" <jvrona@wolvgas.com>, "Darren Naylor" <darrennaylor@exactengineering.com>, "Helene Bardolph" <hbardolph@wolvgas.com>

From: Earlene Russell
To: Dan Triezenberg
Date: 5/31/2005 12:55:05 PM
Subject: Kings Meadow Ranches 17-7

The bonding for the 17-7 looks acceptable. I can't answer for the application approval. Dustin will need to do that. His phone is (801) 538-5281. (He is copied on this e-mail.)

On Bonding - if Wolverine is not able to secure a surety and is retaining the CD's in the name of the Division - Wolverine will need to notify Brighton Bank to put a hold on each CD showing Brighton Bank needs **written** approval from the Division to release funds to someone else. Brighton Bank should also have a copy of the Form 4B for their records.

Thanks.

Earlene Russell
Division of Oil, Gas & Mining
PO Box 145801
Salt Lake City, UT 84114-5801
(801) 538-5336

>>> "Dan Triezenberg" <dtriezenberg@wolvgas.com> 05/31/05 12:14 PM >>>
Earlene,

I just faxed you the CD copy and the form 4B. Please let me know that you have received it and that you are not looking for any additional information to process our approval request.

Thank you.

Dan Triezenberg

-----Original Message-----

From: Earlene Russell [<mailto:earlenerussell@utah.gov>]
Sent: Tuesday, May 31, 2005 2:05 PM
To: Dan Triezenberg
Subject: Re: Fax number

Fax = (801) 359-3940

>>> "Dan Triezenberg" <dtriezenberg@wolvgas.com> 05/31/05 10:49 AM >>>
Earlene,

Can you please email me your fax number so I can send this form 4B and CD information on to you? Thanks for your help.

Dan Triezenberg

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
 Registered Professional Engineer
 stevehash@exactengineering.com

CONFIDENTIAL PLEASE!

May 30, 2005

Mr. Dustin Doucet
 Utah Division of Oil, Gas & Mining
 1594 West North Temple, Suite 1210
 Salt Lake City, UT 84114-5801

Re: Wolverine's - Kings Meadow Ranches 17-6 well
 Sec 17 T23S R01W
 Sevier Co., UT
 API# 43-041-30040

Dear Mr. Doucet,

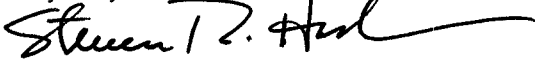
On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed the following:

- 1) UDOGM form 9, Sundry Notice (notice of intent) requesting...
 - a) amendment of well name
 - b) amendment of bottom hole location
- 2) UDOGM form 3, Application For Permit To Drill (cover page), to change well name from Kings Meadow Ranches 17-6 to Kings Meadow Ranches 17-7.
- 3) Surveyor's plat reflecting well name change.
- 4) Revised drilling prognosis and directional plan changing bottom-hole location, formation tops and casing setting points for the revised operation. Please note that the drilling prognosis includes a change to the use of a 20 inch rotating head on top of 20" conductor while drilling 17-1/2" surface casing hole from 123' to 2000' in lieu of the 20" annular preventer presently being used. Mud weights of 10.2 ppg are now being used in this hole section and the rotating head will allow sufficient diversion should any shallow gas be encountered.

Please recall that the sidetrack of the Wolverine Federal 8-1 was renamed to Kings Meadow Ranches 17-6 (WF 8-1).

We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
 Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy with enclosures to:

U.S. Bureau of Land Management; Salt Lake City, UT office;
 Wolverine Gas & Oil Co of Utah, LLC; Grand Rapids, MI office
 EXACT Engineering, Inc.

Mr. Al McKee
 Mr. Ed Higuera
 well file

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
 complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
 due diligence, acquisitions, procedures, temporary personnel and field supervision

RECEIVED

JUN 01 2005

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL		OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Drilling well</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC				6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 55 Campau, NW		CITY <u>Grand Rapids</u> STATE <u>MI</u> ZIP <u>49203</u>	PHONE NUMBER: (616) 458-1150	7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680' FNL & 2217' FWL, Sec 17 T23S				8. WELL NAME and NUMBER: Kings Meadow Ranches 17-6
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <u>SE NW</u>				9. API NUMBER: 4304130040
				10. FIELD AND POOL, OR WILDCAT: Exploratory Area
				COUNTY: <u>Sevier</u>
				STATE: <u>UTAH</u>

11. CHECK APPROPRIATE BOXES TO INDICATE TYPE OF NOTICE, REPORT, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>5/30/2005</u>	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> ACID	<input type="checkbox"/> TEMPORARILY ABANDON
<input type="checkbox"/> ALTER	<input type="checkbox"/> TUBING REPAIR
<input type="checkbox"/> CASING	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> CHANGE 1	<input type="checkbox"/> WATER DISPOSAL
<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> WATER SHUT-OFF
<input checked="" type="checkbox"/> CHANGE WELL NAME	<input checked="" type="checkbox"/> OTHER: <u>amended BHL</u>
<input type="checkbox"/> CHANGE WELL STATUS	
<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
<input type="checkbox"/> CONVERT WELL TYPE	
<input type="checkbox"/> REPAIR REAT	
<input type="checkbox"/> RECONSTRUCTION	
<input type="checkbox"/> OPERATOR CHANGE	
<input type="checkbox"/> PLUG AND ABANDON	
<input type="checkbox"/> PLUG BACK	
<input type="checkbox"/> PRODUCTION (START/RESUME)	
<input type="checkbox"/> RECLAMATION OF WELL SITE	
<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE KEEP THE ENCLOSED INFORMATION CONFIDENTIAL - THANK YOU

It is requested to remove the suspension of authority of the existing permit (API# 43-041-30040). Notice-of-intent dated May 18, 2005 requested this suspension pending the drilling results of the offset well - Kings Meadow Ranches 17-6 (WF 8-1). This well has since been drilled and a completion attempt will be made.

It is requested to amend the well name of this authority FROM Kings Meadow Ranches 17-6 TO Kings Meadow Ranches 17-7.

It is requested to amend the bottom hole location FROM 660' FNL & 1925' FWL TO 515' S and 905' W of the surface hole location as shown in the attached Drilling Prognosis (ver 1 2005.05.30) and accompanying Directional Plan and revised Survey Plat. An amended APD cover page is also attached to reflect the above requested changes.

Wolverine is the mineral lessee of all minerals within 460' of the entire proposed wellbore.

attached: Amended APD, Drilling Prognosis, Directional plan & Survey Plat
xc: BLM

NAME (PLEASE PRINT) Steven R. Hash - Consulting Engineer

TITLE EXACT Engineering Inc (918) 599-9400

SIGNATURE

Steven R. Hash

DATE 5/30/2005

(This space for State use only)

RECEIVED

JUN 01 2005

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL	OIL WELL <input type="checkbox"/>	GAS WELL <input type="checkbox"/>	OTHER <u>Drilling well</u>	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC				6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 55 Campau, NW CITY Grand Rapids STATE MI ZIP 49203				7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680' FNL & 2217' FWL, Sec 17 T23S - R01W				8. WELL NAME and NUMBER: Kings Meadow Ranches 17-6
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 17 23S 1W				9. API NUMBER: 4304130040
COUNTY: Sevier				10. FIELD AND POOL, OR WILDCAT: Exploratory Area
STATE: UTAH				

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>5/30/2005</u>	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input checked="" type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: <u>amended BHL</u>
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE KEEP THE ENCLOSED INFORMATION CONFIDENTIAL - THANK YOU

It is requested to remove the suspension of authority of the existing permit (API# 43-041-30040). Notice-of-intent dated May 18, 2005 requested this suspension pending the drilling results of the offset well - Kings Meadow Ranches 17-6 (WF 8-1). This well has since been drilled and a completion attempt will be made.

It is requested to amend the well name of this authority FROM Kings Meadow Ranches 17-6 TO Kings Meadow Ranches 17-7.

It is requested to amend the bottom hole location FROM 660' FNL & 1925' FWL TO 515' S and 905' W of the surface hole location as shown in the attached Drilling Prognosis (ver 1 2005.05.30) and accompanying Directional Plan and revised Survey Plat. An amended APD cover page is also attached to reflect the above requested changes.

Wolverine is the mineral lessee of all minerals within 460' of the entire proposed wellbore.

attached: Amended APD, Drilling Prognosis, Directional plan & Survey Plat
xc: BLM

NAME (PLEASE PRINT) Steven R. Hash - Consulting Engineer

TITLE EXACT Engineering Inc (918) 599-9400

SIGNATURE

Steven R. Hash

DATE 5/30/2005

(This space for State use only)

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JUN 01 2005

WOLVERINE GAS AND OIL CORPORATION*Energy Exploration in Partnership with the Environment*

June 1, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

RE: Request for Directional Drilling/Exception to Rule 649-3-11
Kings Meadow Ranches 17-7 (KMR 17-7)
Covenant Field, Sevier County, UT
API No. 43-041-30040

Dear Ms. Whitney:

The purpose of this letter is to provide the information we discussed during our conversation on April 31.

*Amended APD
Add worksheet
Change BHL
Change Name
Change Bond (EAR)
Cover letter
Approved 6/1/05*

- Request for Exception to Rule 649-3-11: The proposed KMR 17-7 will be directionally drilled from the surface location known as the A-2 Pad, which is the same pad used to drill the Wolverine Federal 17-3, 17-4, 17-5 and KMR 17-6 (8-1) wells. The well is drilled directionally because of the limited land for drilling wells and because we wanted to minimize the "footprint" of our operations. The proposed bottom hole location of KMR 17-7 at the top of the Navajo is 505' FSL and 202' FEL of the SW/4 NW/4, Section 17 T23S-R1W, which is 258' east of the "400' window" allowed under Rule 649-3-2 (see attached diagram).

The proposed location falls within the Wolverine Federal Unit and Wolverine Gas & Oil owns the mineral lease for the proposed bottomhole location and the mineral leases within 460' radius of the proposed drilling location and for directly or diagonally offsetting drilling locations. Wolverine Gas & Oil owns all leases within 460 feet of the entire proposed trajectory of the wellbore.

The exception to Rule 649-3-11 is needed because a vertical well is not feasible, given our existing surface land situation.

If you have any questions, please call. Thanks again for your help. It is appreciated.

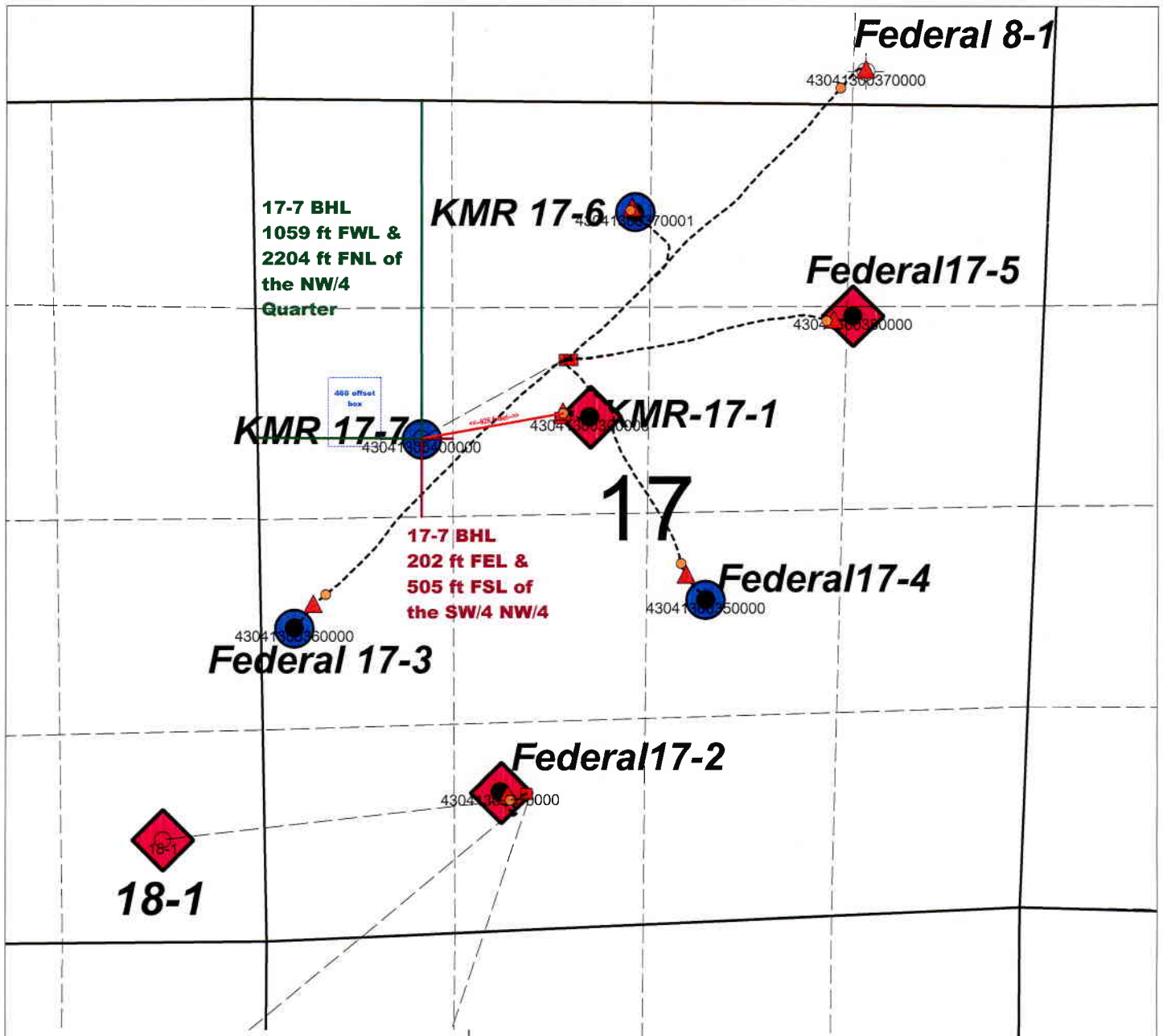
Sincerely,



John Vrona,
Geology Manager

cc: KMR 17-7 Permit File

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JUN 06 2005
DIV. OF OIL, GAS & MINING



○ Proposed NVJO targets

● Notional Upper NVJO Completions

◆ Notional Lower NVJO Completions

■ Other potential SHLs

▨ CPF Fm. Intercept (subsea)

■ SHL NVJO

● BHL TCRK

--- Directional wellpath

1 inch = 1000 feet



Wolverine Gas & Oil Company of Utah, LLC
(Operator)
Energy Exploration in Partnership with the Environment

ONE RIVERFRONT PLAZA
55 CAMPAU, N.W.
GRAND RAPIDS, MI 49503-2616
(616) 458-1150

KMR 17-7 Location Map
Section 17, T23S-R1W
Sevier County, UT

Date: 1 June, 2005

gmp: kj covenant base

WOLVERINE GAS AND OIL CORPORATION

Energy Exploration in Partnership with the Environment

June 1, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

RE: Sundry Notice/Spacing Exception Rule 649-3-3
Kings Meadow Ranches 17-7 (KMR 17-7)
API No 43-041-30040

Dear Ms. Whitney:

The purpose of this letter is to provide the information we discussed during our phone conversation on April 31.

- Request for Exception to Rule 649-3-2: The proposed bottom hole location of the KMR 17-7 at the top of the Navajo is 505' FSL and 202' FEL of the SW/4 NW4, Section 17 T23S-R1W, which is 258' east of the "400' window" allowed under Rule 649-3.2 (see attached diagram).

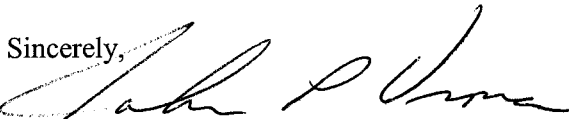
The proposed location falls within the Wolverine Federal Unit and Wolverine Gas & Oil owns the mineral lease for the proposed bottomhole location and the mineral leases within 460' radius of the proposed drilling location and for directly or diagonally offsetting drilling locations.

The exception to Rule 649-3-2 is needed because we are still defining the limits of the structure and our current geological interpretation suggests that the proposed location would be more favorable than extending the location further to the west within the "400' window."

The closest well to the planned BHL of the KMR 17-7 is the KMR 17-1, which is 926.5' to the east at the top of the Navajo wellbore intersection (see attached diagram).

If you have any questions, please call. Thanks again for your help. It is appreciated.

Sincerely,



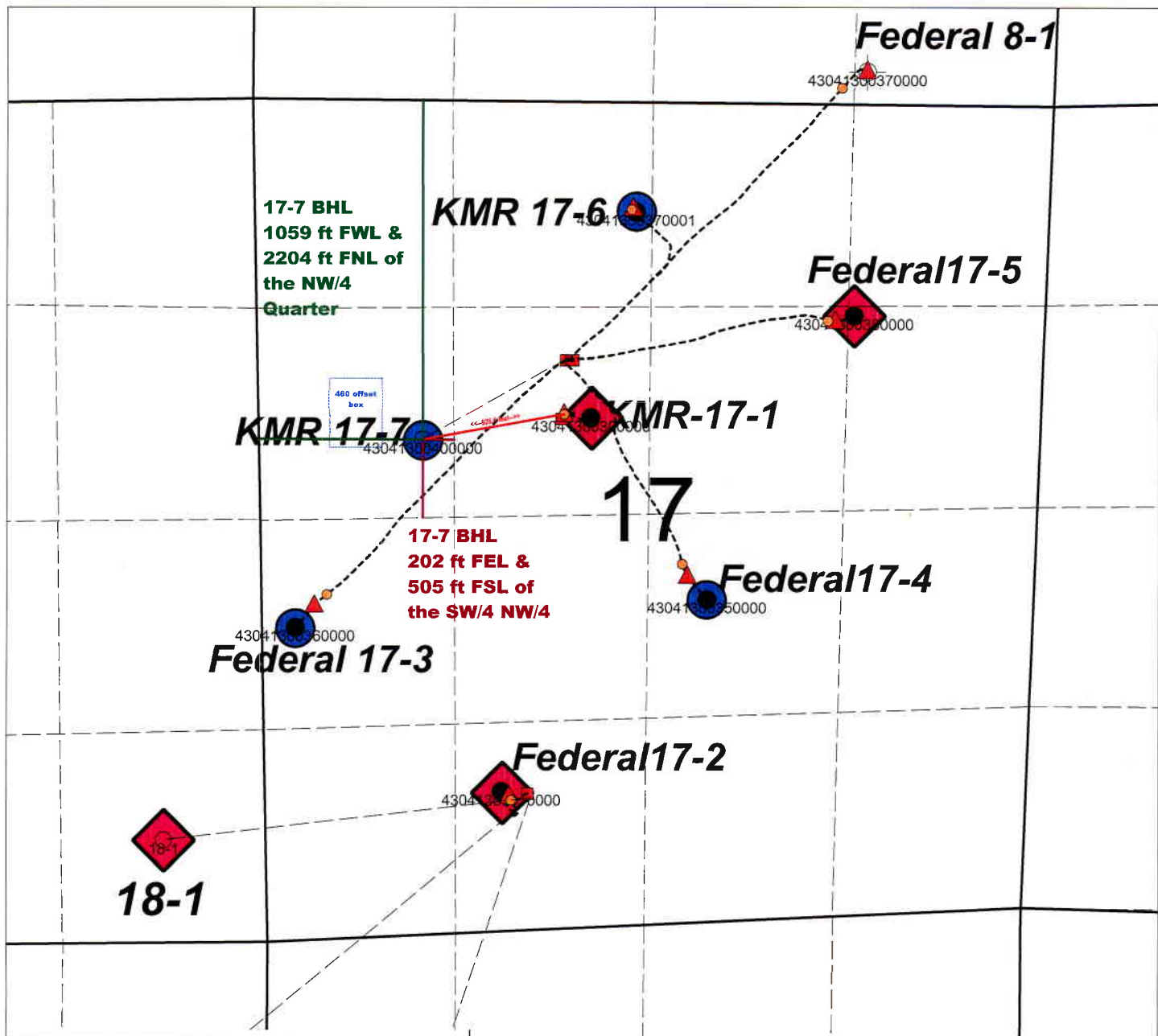
John Vrona
Geology Manager

cc: KMR 17-7 Permit File

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JUN 06 2005

DIV. OF OIL, GAS & MINING



- Proposed NVJO targets
- Notional Upper NVJO Completions
- ◆ Notional Lower NVJO Completions
- Other potential SHLs
- CPF SHL
- ▲ Fm. Intercept (subsea) NVJO
- TCRK
- BHL
- Directional wellpath

1 inch = 1000 feet



Wolverine Gas & Oil Company of Utah, LLC
(Operator)
Energy Exploration in Partnership with the Environment

ONE RIVERFRONT PLAZA
55 CAMP AU, N.W.
GRAND RAPIDS, MI 49503-2616
(616) 458-1150

KMR 17-7 Location Map
Section 17, T23S-R1W
Sevier County, UT

Date: 1 June, 2005

gmp: kj covenant base

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Wolverine Gas and Oil Company of Utah, LLC Operator Account Number: N 1655
Address: 55 Campau NW, One Riverfront Plaza
city Grand Rapids
state MI zip 49503-2616 Phone Number: (616) 458-1150

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130040	Kings Meadow Ranches 17-7		SWNW	17	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	13995	6/1/2005		6/16/05		
Comments: SHL SENW <i>NAV</i>							

CONFIDENTIAL**Well 2**

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Steven R Hash - EXACT Engineering Inc

Name (Please Print)

Steven R. Hash

Signature

Consulting Engineer

6/6/2005

Title

Date

RECEIVED**JUN 0 / 2005**

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL PLEASE!

June 8, 2005

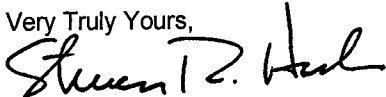
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Kings Meadow Ranches 17-7 well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30040

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from inception on May 31, 2005 through June 7, 2005. The well was spudded on June 1, 2005 and 13-3/8" surface casing was set at 2003' on June 7, 2005. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

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JUN 10 2005

DIV. OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

24 hrs - midnight to midnight

FROM			LAST 24 HOURS:
0:00	10:30	10.50	Drill & survey 1896 to 2003 surface TD
10:30	11:30	1.00	Mix and pump hi-vis sweep to surface
11:30	14:00	2.50	POOH to run 13 3/8 casing
14:00	15:00	1.00	Ly/Dn directional tools
15:00	16:00	1.00	Held safety meeting with Franks Casing crew and rig up same.
16:00	21:00	5.00	Run 45 jts. 13 3/8" casing J-55 61# ST&C-USWA set @ 2003.26' KB, Float Collar @ 1955.41
			Run 5 Centralizers, Depths- 1976'-1910'-1823'-1737' and 89'.
21:00	22:00	1.00	Held safety meeting with Halliburton Cementers, rig up Halliburton Circ. Head and wash 2' to bottom.
22:00	0:00	2.00	Rig up and cement 13-3/8" WITH-595-SKS.-HIFILLV CEMENT-1#/SACK GRANULITE-W/Rq-23.36-Yeild=3.86-LBS/GAL-
			TAIL WITH-475-SKS PREM PLUS-1%CACL ₂ , 25%FLOCELE, 1# GRANULITE-W/Rq-5.20-YEILD=1.18-LBs/Gal=15.6
			Displace With 297.9 BBLS of H ₂ O LAND PLUG - HELD GOOD- CIRC-APPOX-118-BBLS CEMENT TO RESERVE PIT.
			PICKUP-120' OF 1" PIPE-PUMP 15 BBLS OF CLASS G CEMENT=TOP JOB- CEMENT DID NOT FALL
			HAD GOOD CIRC. THROUGH OUT CEMENT JOB.
Daily Total		24.00	

~~CONFIDENTIAL~~

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

Operator: Wolverine G&O Co of Utah, LLC									
DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR		
06/06/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040		G Urban		
DAYS F/SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH	
6	Drilling		1,896	251	17.00	14.8	Navajo	6840 md	

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.7	32		2/32	9.0	0.50	6.25	5	12	8/14	1748	6/6 8am	67,000	2350		110,550

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137		1759	107.00	16.4	Y	45/130	45			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HPH / IN ²	ECD		67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	370							1	140		
2	National	6"	8.5	2.96	125	370							2		170	
Both					250	740	65	75	1900	140						

SLOW PUMP

		67 spm	76 spm	100 spm
1	140			
2		170		

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" bit		1.50		
Dir. Assembly		128.39		
5 - 6 5/8 HWDP		149.72		
19-5" HWS		577.67		
Jars		32.15		
4-5" HW		119.76		
xo		2.91		
Total BHA:		1,012.10		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
98	48	105	95	160

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (F1/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-667
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/6
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 123'	13.375 @ 2000'

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
1,687	9.60	237.70	1680	119	-46	-111	2.84	MWD
1,781	12.40	244.00	1772	137	-54	-127	3.25	MWD

DAILY ACTIVITY

LAST 24 HOURS:			
FROM			
0:00	9:30	9.50	Drill & survey 1645 to 1778
9:30	10:30	1.00	MWD failed, mix and pump hi-vis sweep to surface
10:30	12:30	2.00	POOH for MWD
12:30	14:30	2.00	Ly/Dn MWD pk/up new, c/o UBHO sub. RR bit.
14:30	15:30	1.00	TIH
15:30	16:00	0.50	Wash and ream from 1747 to 1778
16:00	18:00	2.00	Drill & survey 1778 to 1809
18:00	18:30	0.50	C/O swab # 1 mud pump
18:30	0:00	5.50	Drill & survey 1809 to 1896

1. What is the purpose of the study?
 2. What are the research objectives?
 3. What is the research methodology?
 4. What are the results of the study?
 5. What are the conclusions of the study?
 6. What are the limitations of the study?
 7. What are the implications of the study?
 8. What are the future research directions?
 9. What are the references of the study?
 10. What are the acknowledgments of the study?

CONFIDENTIAL

[illegible]

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

Operator: Wolverine Gas Co of Utah, LLC								
DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR		
06/05/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban		
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
5	Drilling		1,645	284	22.50	12.6	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.7	32		2/32	10.0	0.50	5.00	5	15	8/13	1445	6/5 8am	#####	2450		

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137		1508	90.00	16.8	Y	45/130	45			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD		67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	370							1	140		
2	National	6"	8.5	2.96	125	370							2		175	
Both					250	740	65	75	1240	140						

SLOW PUMP

		67 spm	76 spm	100 spm
1	140			
2		175		

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" bit		1.50		
Dir. Assembly		128.79		
5 - 6 5/8 HWDP		149.72		
19-5" HWS		577.67		
Jars		32.15		
4-5" HW		119.76		
xo		2.91		
Total BHA:		1,012.50		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
98	48	100	95	160

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-667
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/4
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 123'	13.375 @ 2000'

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
1,404	7.50	245.10	1399	81	-27	-78	2.16	MWD
1,498	7.90	241.10	1492	94	-32	-89	0.71	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	0:30	0.50	Drill & survey 1361 to 1369
0:30	1:00	0.50	Change swab on # 2 mud pump
1:00	15:00	14.00	Drill & survey 1369 to 1558
15:00	15:30	0.50	Rig service
15:30	22:00	6.50	Drill & survey 1558 to 1630
22:00	22:30	0.50	Change valves and seat on # 1 pump
22:30	0:00	1.50	Drill & survey 1630 to 1645
0:00			
			06:00 drilling @ 1730
Daily Total		24.00	

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

Operator: Wolverine G&O Co of Utah, LLC							
DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/04/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
4	Drilling	1,361	207	17.00	12.2	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.7	32		2/32	9.0	0.50	4.75	4	11	6/9	1266	6/4 8am	85,000	2450		

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137		1224	67.50	18.1	Y	45/130	45			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD		67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	370							1	100		
2	National	6"	8.5	2.96	125	370							2		130	
Both					250	740	65	75	1240	140						

SLOW PUMP

		67 spm	76 spm	100 spm
1	100			
2		130		

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" bit		1.50		
Dir. Assembly		128.79		
5 - 6 5/8 HWDP		149.72		
19-5" HWS		577.67		
Jars		32.15		
4-5" HW		119.76		
xo		2.91		
Total BHA:		1,012.50		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROY. TORQUE
87	48	95	85	150

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/4
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 123'	13.375 @ 2000'

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
1.207	5.20	227.50	1109	51	-14	-51	1.41	MWD
1.309	6.20	258.50	1305	70	-23	-67	2.45	MWD

DAILY ACTIVITY

			LAST 24 HOURS:
FROM			
0:00	17:00	17.00	Drill & survey 1154 to 1361
17:00	17:30	0.50	MWD quit, no pulse, pump high vis sweep to surface.
17:30	18:00	0.50	Mix and pump dry job.
18:00	19:30	1.50	POOH
19:30	20:30	1.00	Change out MWD, lay down mud motor.
20:30	21:30	1.00	Pick up new motor, RR bit and test MWD and motor.
21:30	23:00	1.50	TIH
23:00	0:00	1.00	Ream from 1260 to 1361
			06:00 drilling @ 1412
Daily Total		24.00	

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

Operator: Wolverine S&S Co of Utah, LLC								
DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR	
06/03/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040		G Urban	
DAYS / SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
3	Drilling		1,154	384	23.50	16.3	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.8	32		2/32	9.0	0.50	4.30	5	9	6/8	934	6/3 8 am	105,000	2600		

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137		1017	50.50	20.1	Y	45/130	32			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HPH / IN ²	ECD			67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	370								1	140		
2	National	6"	8.5	2.96	125	370								2		150	
Both					250	740			1110	100							

SLOW PUMP

		67 spm	76 spm	100 spm
1		140		
2			150	

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" bit		1.50		
Dir. Assembly		120.00		
4 - 6 5/8 HWDP		122.12		
19-5" HWS		577.00		
Jars		32.00		
4-5" HW		120.00		
Total BHA:		972.62		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
85	48	85	85	150

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/3
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 123'	13.375 @ 2000'

SURVEYS

[illegible]

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	11:30	11.50	Drill & survey 770 to 984
11:30	12:00	0.50	Rig service
12:00	0:00	12.00	Drill 984 to 1154
0:00			

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Daily Total	24.00
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Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

Operator: Wellbore 540-00-							
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MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.7	30		2/32	11.0	0.50	4.00	2	4	3/5	465	6/2	98,000	2540		

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	17.500	stc	xpvc	417	mr5451	28	28	28	137		633	27.00	23.4	Y	45/130	28			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD		67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	370							1			
2	National	6"	8.5	2.96	125	370							2			
Both					250	740			950	100						

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD		67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	370							1			
2	National	6"	8.5	2.96	125	370							2			
Both					250	740			950	100						

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" bit		1.50		
Dir. Assembly		120.00		
4 - 6 5/8 HWDP		120.00		
19-5" HWS		577.00		
Jars		32.00		
Total BHA:		850.50		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
67		75	75	150

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapleean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/2
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 123'	13.375 @ 2000'

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+/-	E+/-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+/-	E+/-	DLS	TOOL
557	2.90	232.00	556	3	-4	-2	2.18	MWD	741	6.00	271.00	740	14	-4	-14	2.34	MWD
649	4.00	280.00	648	8	-5	-6	3.26	MWD	835	6.70	267.00	834	24	-4	-25	0.86	MWD

DAILY ACTIVITY

[illegible]

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

Operator: Wolverine S&S Co of Utah, LLC								
DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR		
06/01/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	DL Naylor / G Urban		
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
1	Drilling		230	93	4.00	23.3	Navajo	6840 md

MUD DATA

[illegible]

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	17.500	stc	xpvc	417	mr5451	28	28	28	137		93	4.00	23.3	Y	45/130	28			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

		67 spm	76 spm	100 spm
1				
2				

DRILL STRING

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.
17 1/2" bit	1.50		
Dir. Assembly	120.00		
4 - 6 5/8 HWDP	120.00		
Total BHA:	241.50		
STRING WT.	BHA WT.	PU WT.	SO WT.
			ROT. TORQUE

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/1
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 123'	13.375 @ 2000'

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+/-S-	E+/W-	DLS	TOOL
255	0.50	98.20	255	0	-1	0	0.50	MWD
345	0.70	136.50	345	0	-1	1	0.50	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	15:00	15.00	Rig up
15:00	18:00	3.00	PU BHA & test MWD
18:00	19:00	1.00	Drill 120 to 147
19:00	21:00	2.00	Change MWD
21:00	0:00	3.00	Drill & survey 147 to 230
0:00			
0:00			
0:00			Start Day Rate @ 15:00 6/1/05
0:00			Spud @ 18:00 6/1/05
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total		24.00	

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COST DATA

24 hrs - midnight to midnight

FROM			LAST 24 HOURS:		
0:00	6:00	6.00	SDFN		
6:00	18:00	12.00	Move rig		
18:00	0:00	6.00	Rig up		
0:00					
0:00					
0:00					
0:00					
0:00			Note: this permit authority (API# 43-041-30040) was originally assigned wellname Kings Meadow Ranches 17-6.		
0:00			Sundry Notice dated 5/30/05 changed wellname to Kings Meadow Ranches 17-7 and amended BHL target		
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
0:00					
Daily Total		24.00			

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevhash@exactengineering.com

CONFIDENTIAL PLEASE!

June 18, 2005

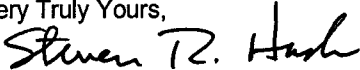
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Kings Meadow Ranches 17-7 well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30040

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from June 8, 2005 through June 17, 2005. We are drilling near 5800' and expect to set 9-5/8" casing at approximately 6050'. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

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RECEIVED

JUN 21 2005

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

24 hrs - midnight to midnight

COST DATA

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6 AM Drilling @ 5498

24 hrs - midnight to midnight

DAILY ACTIVITY					
FROM			LAST 24 HOURS:		
0:00	1:30	1.50	Drill & Survey from 4623 to 4646		
1:30	2:30	1.00	Motor stalls with 12k wt. pump sweep and dry job.		
2:30	5:30	3.00	POOH		
5:30	6:30	1.00	C/O Bit check MWD and Motor, check good.		
6:30	9:30	3.00	TIH		
9:30	10:00	0.50	Ream 4622 to 4646		
10:00	15:00	5.00	Drill from 4646 to 4722 from 4655 to 4661 high torque took 1 hr to drill 6'		
15:00	15:30	0.50	Rig Service		
15:30	0:00	8.50	Drill & Survey from 4722 to 4911		
			6 AM Drilling @ 5050		
Daily Total		24.00			

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Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/15/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
15	Drilling	4,623	511	22.50	22.7	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.1	34		2/32	10.0	0.50	5.00	5	17	10/17	4240	6/15 8am	134,000	2480		221,100

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
3	12.250	RTC	HP43A	437	B73541	24	24	24	3306		1317	55.50	23.7	Y	35/130	40	T	B	G
4													#DIV/0!						
5													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP		
													67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	356							1	240	
2	National	6"	8.5	2.96	125	356							2		270
Both					250	742	133	155	1800	250					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12 1/4 Bit	1.08	12.250		Arapiean				Rig No	Unit 111
Dir. Assembly	114.69			Twin Creek				Cell Ncrren	918-645-6671
5 - 6 5/8 HWDP	149.72	7.625	5.250	Navajo				Last BOP Test	6/9
19-5" HWS	577.67	6.250	3.125	GAS DATA				Next BOP Test	7/9
Jars	32.15	6.313	2.750	BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS	Last Safety Meeting	6/15
4-5" HW	119.76	6.625	3.250	SHOWS				Last BOP Drill	6/10
XO	2.91			GAS UNITS	FROM	TO	ROP (FT/HR)	Last Operate Pipe Rai	
								Last Operate Blind Ra	
Total BHA:	997.98							Last Operate Annular	
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	
150	48	170	130	190	5,736	17	5,753		
				LAST CASING		NEXT CASING			
				3.375" @ 2003		9.625 @ 5950			

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
4,300	14.60	238.60	4189	842	-365	-760	1.49	MWD	4,489	15.70	243.00	4372	890	-388	-803	1.39	MWD
4,395	14.40	242.70	4281	865	-376	-781	1.10	MWD	4,584	14.40	242.00	4464	914	-399	-825	1.38	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	4:00	4.00	Drill & Survey from 4112 to 4187
4:00	5:00	1.00	Work on # 2 pump C/O Swab and liner gasket
5:00	15:30	10.50	Drill from 4187 to 4470
15:30	16:00	0.50	Rig Service
16:00	0:00	8.00	Drill from 4470 to 4623

CONFIDENTIAL

Daily Total 24.00

COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
06/14/05	KMR 17-7	Unit Rig #111		Sevier, UT	6/1/05	43-041-30040		G Urban
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
14	Drilling		4,112	282	14.00	20.1	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.1	32		2/32	9.0	0.50	5.00	4	9	5/8	3990	6/14 8am	131,000	2460		216,150

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA)			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
3	12.250	RTC	HP43A	437	B73541	24	24	24	3306		806	33.00	24.4	Y	35/130	40	T	B	G
4													#DIV/0!						
5													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF. PRESS.	HHP / IN ²	ECD	SLOW PUMP		
1	National	6"	8.5	2.96	125	356							1	240	
2	National	6"	8.5	2.96	125	356							2		270
Both					250	742	133	155	1800	250					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12 1/4 Bit	1.08	12.250		Arapiean				Rig No	Unit 111
Dir. Assembly	114.69			Twin Creek				Cell Ncrren	918-645-6671
5 - 6 5/8 HWD	149.72	7.625	5.250	Navajo				Last BOP Test	6/9
19-5" HWS	577.67	6.250	3.125	GAS DATA				Next BOP Test	7/9
Jars	32.15	6.313	2.750	BOTTOMS UP TIME	BS GAS	CONN GAS	TRIP GAS	Last Safety Meeting	6/14
4-5" HW	119.76	6.625	3.250					Last BOP Drill	6/10
xo	2.91			GAS UNITS	FROM	TO	ROP (FT/HR)	Last Operate Pipe Ra	
								Last Operate Blind Ra	
Total BHA:	997.98							Last Operate Annular	
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	
140	48	165	125	170	5,736	17	5,753		
								LAST CASING	NEXT CASING
								3.375" @ 2003	9.625 @ 5950

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
3,923	15.20	247.80	3828	735	-315	-666	1.24	MWD	4,111	17.10	239.70	4007	790	-338	-716	2.48	MWD
4,018	17.90	246.90	3919	762	-325	-691	2.85	MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS.
0:00	5:00	5.00	Drill & Survey from 3830 to 3950
5:00	6:00	1.00	Work on pump # 1
6:00	7:00	1.00	Drill & Survey from 3950 to 3970
7:00	7:30	0.50	Work on pump # 1
7:30	8:30	1.00	Drill from 3970 to 3999
8:30	9:00	0.50	Rig service
9:00	9:30	0.50	Drill from 3999 to 4010
9:30	10:00	0.50	Work on pump # 1
10:00	11:00	1.00	Drill from 4010 to 4030
11:00	11:30	0.50	Pump dry job
11:30	13:00	1.50	POOH 22 stds. to shoe repair pump
13:00	16:00	3.00	Replace module on #1 pump
16:00	18:00	2.00	TIH
18:00	20:30	2.50	Drill from 4030 to 4062
20:30	21:00	0.50	Work on pump # 1 Charge hydrill
21:00	0:00	3.00	Drill from 4062 to 4112
			100 % Slide from 4030' to 4112
			6AM DRILLING @ 4202'
Daily Total	24.00		

COST DATA

CONFIDENTIAL

24 hrs - midnight to midnight

COST DATA

24 hrs - midnight to midnight

COST DATA

24 hrs - midnight to midnight

COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/10/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
10	Drilling	2,427	424	20.50	20.7	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.2	31		2/32	11.0	0.50	3.50	4	11	6/10	2142	6/9 8am	49,000	2100		80,850

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137	2003	1866	117.50	15.9	Y	45/130	45	3	3	-1/16
2	12.250	DPI	mp45lt	PDC	2016094	6/16			2003		424	20.50	20.7						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD			67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125								1		130		
2	National	6"	8.5	2.96	125								2			150	
Both					250	370	133	155	1600	250							

SLOW PUMP

		67 spm	76 spm	100 spm
1		130		
2			150	

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12 1/4 Bit		1.50	12.250	
Dir. Assembly		115.12		
5 - 6 5/8 HWDP		149.72	7.625	5.250
19-5" HWS		577.67	6.250	3.125
Jars		32.15	6.313	2.750
4-5" HW		119.76	6.625	3.250
xo		2.91		
Total BHA:		998.65		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
110	48	115	105	200

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	6/9
Next BOP Test	7/9
Last Safety Meeting	6/10
Last BOP Drill	6/10
Last Operate Pipe Rammer	
Last Operate Blind Rammer	
Last Operate Annular	
LAST CASING	NEXT CASING
3.375" @ 2003	9.625 @ 5950

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
2,222	14.30	242.10	2199	245	-103	-224	0.99	MWD	2,411	15.60	243.00	2382	294	-125	-267	0.42	MWD
2,316	15.20	243.00	2290	269	-114	-245	1.02	MWD	2,505	15.60	245.00	2472	320	-136	-290	0.51	MWD

DAILY ACTIVITY

[illegible]

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/09/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
9	TIH	2,003			#VALUE!	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.6	34		2/32	9.0	0.50	6.50	5	16	8/14	2003	6/8 8am	65,000	2250		

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137	2003	1866	117.50	15.9	Y	45/130	45	3	3	-1/16
2	12.250	DPI	mp45lt	PDC	2016094	6/16			2003				#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP		
													67 spm	76 spm	100 spm
1	National	6"	8.5	2.96									1		
2	National	6"	8.5	2.96									2		
Both															

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	GENERAL INFO	
12 1/4 Bit		1.50	12.250		Arapiean				RIG INFO	
Dir. Assembly		115.12			Twin Creek				Rig No Unit 111	
5 - 6 5/8 HWDP		149.72	7.625	5.250	Navajo				Cell Narren 918-645-6671	
19-5" HWS		577.67	6.250	3.125	GAS DATA				Last BOP Test 6/9	
Jars		32.15	6.313	2.750	BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS	Next BOP Test 7/9	
4-5" HW		119.76	6.625	3.250	SHOWS				Last Safety Meeting 6/9	
XO		2.91			GAS UNITS	FROM	TO	ROP (F/THR)	Last BOP Drill	
									Last Operate Pipe Ram	
									Last Operate Blind Ram	
Total BHA:		998.65							Last Operate Annular	
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING NEXT CASING	
					5,736	17	5,753		3.375" @ 2003 9.625 @ 5950	

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	4:00	4.00	Test BOPE, gland nut leaking, tighten nut, retry test, test plug not holding, pull test plug and in doing so bent seat pin.
4:00	10:00	6.00	Wait on Cameron hand from Vernal to repair MBS head
10:00	12:00	2.00	Lift stack and remove seat pin, set stack back in place and tighten down.
			Need 1 3/4" 8 thread tap befor installing gland nut in Cameron MBS, only tap in area is Salt Lake City, send hand for tap.
12:00	13:30	1.50	Test upper & lower kelly valves , dart valve all tested to low side 200psi 5 min. High side 5000psi 10 min.
13:30	17:00	3.50	Wait on tap to fix well head
17:00	20:00	3.00	Test BOPE Annular, Blind Rams, Pipe rams, HCR valve, Choke manifold
			Annular tested low 250psi 5 min & 2500psi 10 min. BOPE test witnessed by Mark Jones & Bart Kettle State of Utah.
20:00	21:00	1.00	Install wear bushing
21:00	22:30	1.50	Pick up directional BHA and test MWD
22:30	0:00	1.50	TIH

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6AM DRILLING @ 2097'

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE 06/08/05	WELL KMR 17-7	CONTRACTOR Unit Rig #111	COUNTY, STATE Sevier, UT	SPUD DATE 6/1/05	API# 43-041-30040	SUPERVISOR G Urban	
DAYS F/ SPUD 8	PRESENT OPERATIONS @ MIDNIGHT wait on parts for MBS	TOTAL DEPTH 2,003	PROGRESS	DRILLING TIME	ROP #VALUE!	FORMATION Navajo	AUTH. DEPTH 6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.6	34		2/32	9.0	0.50	6.50	5	16	8/14	2003	6/8 8am	65,000	2250		

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	17.500	stc	xpvc	417	mr5451	28	28	28/22	137	2003	1866	117.50	15.9	Y	45/130	45	3	3	-1/16
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

		67 spm	76 spm	100 spm
1				
2				

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" bit				
Dir. Assembly				
5 - 6 5/8 HWDP				
19-5" HWS				
Jars				
4-5" HW				
xo				
Total BHA:				
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE

GEOLOGIC

0252000			
FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek			
Navajo			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

GENERAL INFO	
RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-667
Last BOP Test	
Next BOP Test	
Last Safety Meeting	6/8
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	
LAST CASING	NEXT CASING
3.375" @ 2003	9.625 @ 5950

SURVEYS

[illegible]

DAILY ACTIVITY

[illegible]

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EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL PLEASE

June 26, 2005

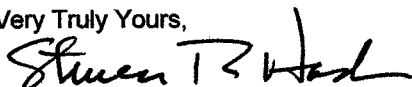
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Kings Meadow Ranches 17-7 well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30040

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from June 18, 2005 through June 25, 2005. 7-inch production casing was set @ 6810 and the rig released on June 24, 2005. We are presently moving the drilling rig to well pad B-1 approximately ½ mi due south of the present location and expect a rig to begin completion operations about July 19, 2005. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

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DIV. OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/24/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	DL Naylor	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
24	Rig down	6,810	0	0.00	#DIV/0!	Navajo	6840 md

RESULTS

[illegible]

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION		
												RT+MTR			T	B	G
											#VALUE!						
											#VALUE!						
											#DIV/0!						
											#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

	67 spm	76 spm	100 spm
1			
2			

DRILL STRING

[illegible]

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapieen			
Twin Creek	5,840	5,682	
Navajo	6,133	5,974	
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (F/T/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Nkren	918-645-6671
Last BOP Test	6/9
Next BOP Test	7/9
Last Safety Meeting	6/23
Last BOP Drill	6/23
Last Operate Pipe Ra	6/23
Last Operate Blind Ra	6/23
Last Operate Annular	6/23
LAST CASING	NEXT CASING
9.625 @ 6041	7" @ TD

SURVEYS

[illegible]

DAILY ACTIVITY

[illegible]

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This am Wait on trucks - prepare to move rig to pad B-1 for WF 19-1 well.

Production casing and casing running cost 6/23 will be included with Well Completion Cost on the completion report.

FINAL DRLG REPORT THIS WELL - OFF REPT UNTIL COMPLETION BEGINS APPROX 7/19/05

Daily Total	24.00
-------------	-------

COST DATA

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/23/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	DL Naylor	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
23	Set 7" slips	6,810	0	0.00	#DIV/0!	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA	IN	GUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
											#VALUE!				T B G
											#VALUE!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	67 spm	76 spm	100 spm
1	National	6"	8.5	2.96									1		
2	National	6"	8.5	2.96									2		
Both															

SLOW PUMP

DRILL STRING				GEOLOGIC				GENERAL INFO			
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO			
				Arapahoe				Rig No	Unit 111		
				Twin Creek	5,840	5,682		Cell Ncrrn	918-645-6671		
				Navajo	6,133	5,974		Last BOP Test	6/9		
				GAS DATA				Next BOP Test	7/9		
				BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS	Last Safety Meeting	6/23		
				SHOWS				Last BOP Drill	6/23		
				GAS UNITS	FROM	TO	ROP (F/MH)	Last Operate Pipe Ra	6/23		
								Last Operate Blind Ra	6/23		
								Last Operate Annular	6/23		
Total BHA:	997.98							Last CASING			
STRING WT.	BHA WT.	FU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG			
					5,736	17	5,753		9.625 @ 6041	7" @ TD	

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	2:30	2.50	RIH to LD DP
2:30	5:00	2.50	Circ. & rig up LD machine
5:00	12:30	7.50	LD DP & HWDP
12:30	19:30	7.00	RU & run 6812' - 154 jts. 23# P110 7" production csng. set @ 6810
19:30	20:30	1.00	Circ. & rig up cementers
20:30	22:30	2.00	Cement csng. With 240 sks. 50/50 pos. cement displace 266 bbl. bump plug, hold 1500 psi.
22:30	0:00	1.50	RD Halliburton, Set slips

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This am Nipple down BOPE

DIV. OF OIL, GAS & MINING

Daily Total 24.00

COST DATA

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/22/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	DL Naylor	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
22	RIH to LD DP	6,810	0	0.00	#DIV/0!	Navajo	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
8.5	35	8.0	1/32	8.8	tr	1.30	5	9	4/6	6810	6/21/18:00	4,000	140		5,775

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
5	8.500	Sec.	XS30	537	10686490	11	11	11	5955	6810	815	26.50	30.8	Y	35/130	40			
													#VALUE!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

[illegible]

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
8 1/2 bit		1.00	8.500	
Dir. Assembly		58.00	6.5	
19-5" HWS		577.67	6.250	3.125
Jars		32.15	6.313	2.750
4-5" HW		119.76	6.625	3.250
Total BHA:		997.98		
STRING WT.	BHA WT.	PUWT.	SO WT.	ROY. TORQUE
175	45	210	140	250

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapahoe			
Twin Creek	5,840	5,682	
Navajo	5,133	5,974	
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (F-THR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSEG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Nnrren	918-645-667
Last BOP Test	6/9
Next BOP Test	7/9
Last Safety Meeting	6/17
Last BOP Drill	6/16
Last Operate Pipe Ra	6/15
Last Operate Blind Ra	6/15
Last Operate Annular	6/15
LAST CASING	NEXT CASING
9.625 @ 6041	7" @ TD

SURVEYS

[illegible]

DAILY ACTIVITY

[illegible]

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COST DATA

24 hrs - midnight to midnight

MUD DATA

ET DATA

HYDRAULICS

SLOW PUMP

DRILL STRING

GEOLOGIC

GENERAL INFO

SURVEYS

DAILY ACTIVITY

FROM

LAST 24 HOURS:

0:00	17:00	17.00	Drill & Survey 6127 to 6687
------	-------	-------	-----------------------------

17:00	17:30	0.50	Rig service
-------	-------	------	-------------

17:30	20:30	3.00	Drill & Survey 6687 to 6810
-------	-------	------	-----------------------------

20:30	23:00	2.50	Circ. & condition for logs
-------	-------	------	----------------------------

23:00	0:00	1:00	POOH for logs
-------	------	------	---------------

Daily Total	24.00
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COST DATA

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DIV. OF OIL, GAS & MINING

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/20/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
20	Drilling	6,127	172	6.50	26.5	Twin Creek	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
8.4	32	11.6	1/32	9.0	tr	1.20	3	3	2/2	6000	6/20/18:00	3,500	140		5,775

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT*MTR	WOB	DULL CONDITION		
																	T	B	G
5	8.500	Sec.	XS30	537	10686490	11	11	11	5955		172	6.50	26.5	Y	35/130	40			
													#VALUE!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

		67 spm	76 spm	100 spm
1	280			
2		300		

DRILL STRING

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	
8 1/2 bit	1.00	8.500		
Dir. Assembly	58.00	6.5		
19-5" HWS	577.67	6.250	3.125	
Jars	32.15	6.313	2.750	
4-5" HW	119.76	6.625	3.250	
Total BHA:	997.98			
STRING WT.	BHA WT.	PU WT.	SOWT.	ROT. TORQUE

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
Twin Creek	5,840	5,682	
Navajo	6,133	5,974	
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (F/T/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Nnrren	918-645-8671
Last BOP Test	6/9
Next BOP Test	7/9
Last Safety Meeting	6/17
Last BOP Drill	6/16
Last Operate Pipe Ram	6/15
Last Operate Blind Ra	6/15
Last Operate Annular	6/15
LAST CASING	NEXT CASING
9.625 @ 6041	7" @ TD

SURVEYS

[illegible]

DAILY ACTIVITY

[illegible]

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JUL 08 2005

DIV. OF OIL, GAS & MINING

COST DATA

24 hrs - midnight to midnight

COST DATA

DIV. OF OIL, GAS & MINING

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
06/18/05	KMR 17-7	Unit Rig #111	Sevier, UT	6/1/05	43-041-30040	G Urban	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
18	Drilling	5,889	491	21.00	23.4	Twin Creek	6840 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.4	35		2/32	10.2	0.50	6.25	5	20	10/19	5505	6/18 8am	151,000	2920		249,150

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
3	12.250	RTC	HP43A	437	B73541	24	24	24	3306	4646	1340	57.00	23.5	Y	35/130	40	7	8	1
4	12.250	RTC	HP53A	537	PB4484	24	24	24	4646		1243	57.50	21.6	Y	35/130	44			
5													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP			
													67 spm	76 spm	100 spm	150 spm
1	National	6"	8.5	2.96	120	356							1	280		
2	National	6"	8.5	2.96	120	356							2		300	
Both					240	742	133	155	1900	250						

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
12 1/4 Bit	1.08	12.250		Arapiean				Rig No Unit 111
Dir. Assembly	114.69			Twin Creek				Cell Nnren 918-645-6671
5 - 6 5/8 HWDP	149.72	7.625	5.250	Navajo				Last BOP Test 6/9
19-5" HWS	577.67	6.250	3.125					Next BOP Test 7/9
Jars	32.15	6.313	2.750					Last Safety Meeting 6/17
4-5" HW	119.76	6.625	3.250					Last BOP Drill 6/16
xo	2.91							Last Operate Pipe Rar 6/15
								Last Operate Blind Ra 6/15
Total BHA:	997.98							Last Operate Annular 6/15
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
173	48	210	150	270	5,736	17	5,753	
								LAST CASING NEXT CASING
								3.375" @ 2003 9.825 @ 5950

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
5,434	14.50	242.80	5286	1130	-485	-1024	0.70	MWD									
5,812	6.90	241.60	5655	1212	-524	-1096	2.90	MWD									

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	2:00	2.00	Drill & Survey from 5398 to 5441
2:00	2:30	0.50	Change swab # 1 pump
2:30	5:30	3.00	Drill & Survey from 5441 to 5494
5:30	7:00	1.50	Change swab # 2 pump
7:00	13:00	6.00	Drill & Survey from 5494 to 5620
13:00	13:30	0.50	Rig Service
13:30	23:30	10.00	Drill & Survey from 5620 to 5889
23:30	0:00	0.50	Change swab # 1 pump

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6 AM Drilling @ 5952

COST DATA

Daily Total 24.00

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 8/24/2005	TEST DATE: 8/24/2005	HOURS TESTED: 120	TEST PRODUCTION RATES: →	OIL – BBL: 274	GAS – MCF: 0	WATER – BBL: 0	PROD. METHOD: Flowing
CHOKE SIZE: Open	TBG. PRESS. 0	CSG. PRESS. 0	API GRAVITY 40.00	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS: Producing

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
Navajo	6,128	6,810	Oil & water	Arapien Twin Creek Navajo	0 5,828 6,128

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) John Vrona

TITLE Manager of Geology

SIGNATURE

DATE 8/29/2005

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation

- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

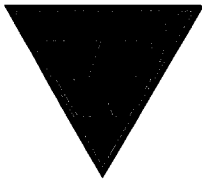
** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

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WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

August 29, 2005

CONFIDENTIAL

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Kings Meadow Ranches 17-7 Well
Completion Report

Dear Al:

Enclosed please find the Completion Report (form #8) for the captioned well. Attached to the report are the following documents:

- Directional Survey
- Geologic Report
- Logs
 - Mudlog
 - Electric Micro Imager Monitor Log
 - HRI MD
 - HRI TVD
 - Spectral Density/DSN/GR MD
 - Spectral Density/DSN/GR TVD

Please keep this report and all attachments confidential. If you have any questions or concerns, please feel free to contact me.

Sincerely,

Helene Bardolph

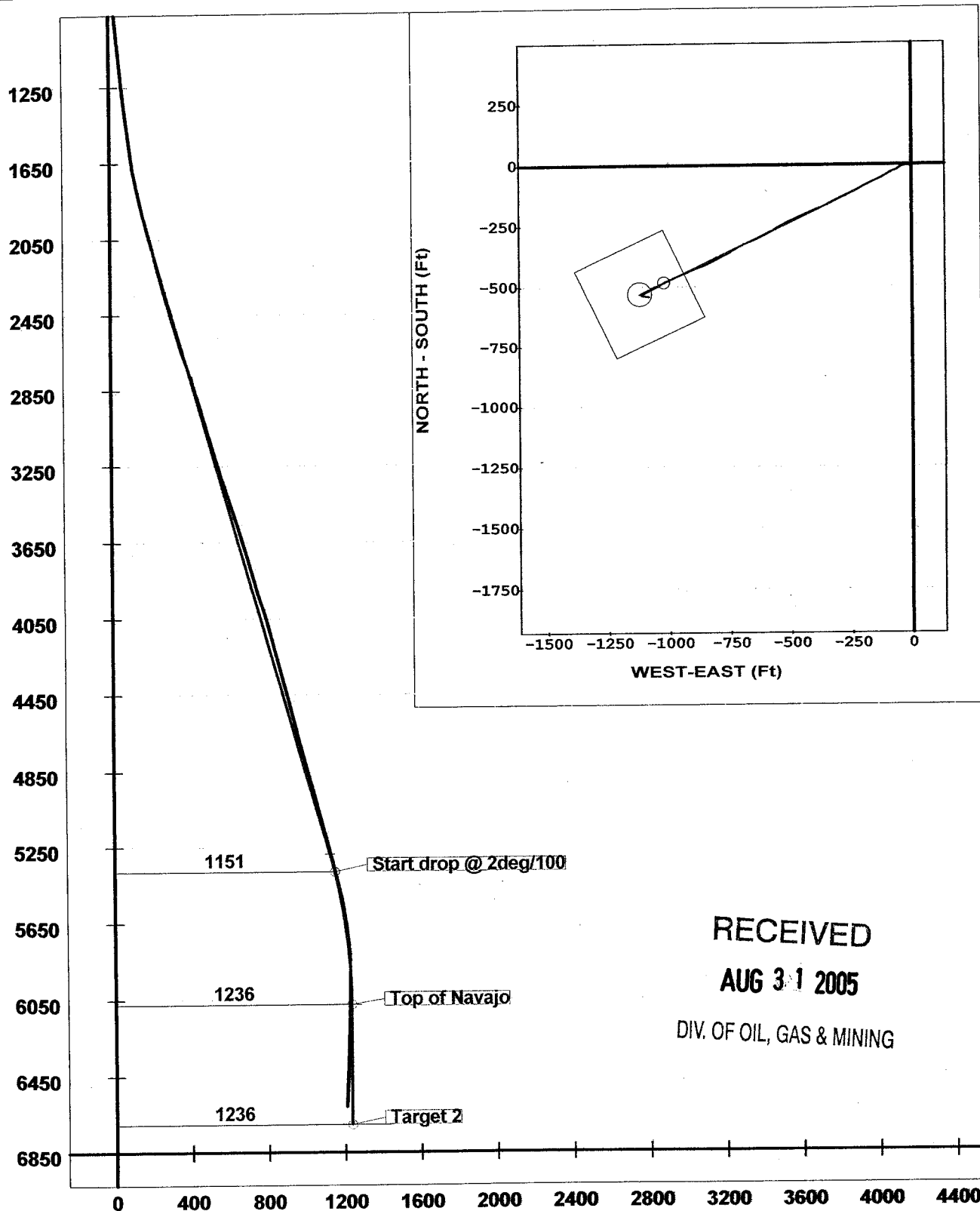
enclosures

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Company: Wolverine Oil & Gas Co of Utah, LLC
Lease/Well: KMR 17-7
Location: Covenant Field
State/Country: Sevier Co. Ut.



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° - 17-7 Work ^ - 17-7 New Target

VERTICAL SECTION (Ft) @ 240.36°



Job Number: WYL0505D067

State/Country: Sevier Co. Ut.

Company: Wolverine Oil & Gas Co of Utah, LLC Declination: 12.56

Lease/Well: KMR 17-7

Grid:

Location: Covenant Field

File name: C:\MARSHA~1\ENDOFW~1\WOLVER~1\FE948F~1\17-

Rig Name: Unit 111

Date/Time: 12-Jul-05 / 14:22

RKB:

Curve Name: 17-7 Work

G.L. or M.S.L.:

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 240.36

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	90.00
160.00	.30	178.30	160.00	160.00	.20	-.42	.01	.19	.19	111.44	-113.49
255.00	.50	98.20	255.00	95.00	-.01	-.73	.43	.57	.21	-84.32	83.51
345.00	.70	136.50	344.99	90.00	-.46	-1.18	1.20	.49	.22	42.56	127.36
436.00	.80	219.80	435.99	91.00	.01	-2.07	1.17	1.10	.11	91.54	37.36
496.00	1.60	239.50	495.97	60.00	1.24	-2.82	.18	1.48	1.33	32.83	-16.31
557.00	2.90	232.10	556.93	61.00	3.61	-4.20	-1.77	2.18	2.13	-12.13	94.62
649.00	4.00	280.50	648.78	92.00	8.37	-5.04	-6.76	3.26	1.20	52.61	-26.47
741.00	6.00	271.30	740.42	92.00	14.95	-4.35	-14.72	2.34	2.17	-10.00	-31.43
835.00	6.70	267.70	833.85	94.00	24.03	-4.46	-25.11	.86	.74	-3.83	-104.29
925.00	6.50	256.20	923.25	90.00	33.60	-5.89	-35.31	1.48	-.22	-12.78	-133.55
1017.00	5.40	241.90	1014.76	92.00	42.94	-9.17	-44.18	2.00	-1.20	-15.54	-105.68
1112.00	5.20	227.50	1109.36	95.00	51.60	-14.18	-51.30	1.41	-.21	-15.16	77.14
1207.00	5.40	234.80	1203.95	95.00	60.25	-19.67	-58.13	.74	.21	7.68	83.57
1309.00	6.20	258.50	1305.45	102.00	70.26	-23.53	-67.45	2.45	.78	23.24	-57.66
1404.00	7.50	245.10	1399.77	95.00	81.32	-27.16	-78.10	2.16	1.37	-14.11	-55.26
1498.00	7.90	241.10	1492.92	94.00	93.89	-32.87	-89.32	.71	.43	-4.26	-162.16
1592.00	6.90	238.40	1586.14	94.00	105.99	-38.95	-99.79	1.13	-1.06	-2.87	-2.48
1687.00	9.60	237.70	1680.15	95.00	119.61	-46.18	-111.34	2.84	2.84	-.74	27.11
1781.00	12.40	244.20	1772.42	94.00	137.52	-54.76	-127.06	3.25	2.98	6.91	24.45
1844.00	13.60	246.50	1833.80	63.00	151.63	-60.66	-139.94	2.07	1.90	3.65	-53.66
2033.00	14.60	241.40	2017.11	189.00	197.54	-80.92	-181.24	.84	.53	-2.70	35.21
2128.00	15.20	243.00	2108.92	95.00	221.95	-92.31	-202.85	.77	.63	1.68	-166.15
2222.00	14.30	242.10	2199.82	94.00	245.87	-103.33	-224.09	.99	-.96	-.96	20.82
2316.00	15.20	243.40	2290.72	94.00	269.78	-114.28	-245.37	1.02	.96	1.38	3.85

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
2411.00	15.60	243.50	2382.31	95.00	294.97	-125.56	-267.93	.42	.42	.11	90.87
2505.00	15.60	245.30	2472.85	94.00	320.18	-136.48	-290.73	.51	.00	1.91	17.66
2600.00	16.40	246.20	2564.17	95.00	346.25	-147.23	-314.60	.88	.84	.95	-14.46
2694.00	17.70	245.10	2654.03	94.00	373.69	-158.60	-339.71	1.42	1.38	-1.17	39.40
2789.00	18.40	246.90	2744.36	95.00	402.98	-170.57	-366.60	.94	.74	1.89	166.85
2883.00	17.50	247.60	2833.78	94.00	431.74	-181.77	-393.31	.98	-.96	.74	-169.83
2978.00	16.70	247.10	2924.58	95.00	459.47	-192.53	-419.09	.86	-.84	-.53	-111.35
3071.00	16.40	244.20	3013.73	93.00	485.84	-203.44	-443.22	.94	-.32	-3.12	39.41
3166.00	16.90	245.60	3104.75	95.00	512.97	-214.98	-467.87	.67	.53	1.47	-133.58
3262.00	16.50	244.10	3196.70	96.00	540.47	-226.70	-492.84	.61	-.42	-1.56	-65.61
3356.00	16.80	241.90	3286.76	94.00	567.37	-238.93	-516.83	.74	.32	-2.34	-1.07
3451.00	18.50	241.80	3377.28	95.00	596.16	-252.52	-542.23	1.79	1.79	-.11	-79.64
3546.00	18.60	240.20	3467.35	95.00	626.38	-267.17	-568.66	.55	.11	-1.68	143.35
3640.00	17.60	242.70	3556.70	94.00	655.57	-281.14	-594.30	1.35	-1.06	2.66	162.34
3734.00	16.70	243.70	3646.52	94.00	683.26	-293.64	-619.04	1.01	-.96	1.06	133.81
3829.00	16.20	245.60	3737.63	95.00	710.08	-305.17	-643.34	.77	-.53	2.00	150.29
3923.00	15.20	247.80	3828.12	94.00	735.36	-315.24	-666.69	1.24	-1.06	2.34	-5.86
4018.00	17.90	246.90	3919.18	95.00	762.22	-325.67	-691.66	2.85	2.84	-.95	-113.69
4111.00	17.10	239.70	4007.88	93.00	790.09	-338.18	-716.61	2.48	-.86	-7.74	-160.74
4206.00	16.00	238.30	4098.94	95.00	817.14	-352.11	-739.81	1.23	-1.16	-1.47	176.91
4300.00	14.60	238.60	4189.61	94.00	841.93	-365.09	-760.95	1.49	-1.49	.32	103.00
4395.00	14.40	242.70	4281.59	95.00	865.70	-376.75	-781.66	1.10	-.21	4.32	3.57
4489.00	15.70	243.00	4372.36	94.00	890.09	-387.88	-803.38	1.39	1.38	.32	-172.38
4584.00	14.40	242.30	4464.10	95.00	914.73	-399.21	-825.30	1.38	-1.37	-.74	118.49
4678.00	13.90	246.40	4555.25	94.00	937.64	-409.16	-845.99	1.19	-.53	4.36	34.75
4773.00	15.00	249.30	4647.25	95.00	961.14	-418.08	-867.95	1.39	1.16	3.05	65.14
4867.00	15.20	250.90	4738.00	94.00	985.27	-426.41	-890.97	.49	.21	1.70	-68.71
4962.00	15.80	245.80	4829.55	95.00	1010.39	-435.79	-914.54	1.57	.63	-5.37	158.32
5056.00	15.40	246.40	4920.09	94.00	1035.54	-446.03	-937.65	.46	-.43	.64	148.58
5151.00	14.70	248.10	5011.83	95.00	1060.03	-455.57	-960.39	.87	-.74	1.79	-97.89
5245.00	14.60	244.40	5102.77	94.00	1083.66	-465.14	-982.14	1.00	-.11	-3.94	161.20
5340.00	14.10	245.10	5194.81	95.00	1107.14	-475.19	-1003.44	.56	-.53	.74	-55.97
5434.00	14.50	242.80	5285.90	94.00	1130.31	-485.39	-1024.29	.74	.43	-2.45	-85.02
5529.00	14.70	237.00	5377.83	95.00	1154.23	-497.39	-1044.98	1.55	.21	-6.11	118.69
5623.00	13.70	246.00	5468.97	94.00	1177.21	-508.41	-1065.15	2.58	-1.06	9.57	-164.00
5718.00	11.00	241.90	5561.77	95.00	1197.47	-517.26	-1083.43	2.99	-2.84	-4.32	-179.50
5812.00	6.90	241.60	5654.60	94.00	1212.09	-524.17	-1096.31	4.36	-4.36	-.32	-174.40
5907.00	4.90	239.30	5749.10	95.00	1221.85	-528.96	-1104.82	2.12	-2.11	-2.42	-143.43
5983.00	3.90	227.40	5824.87	76.00	1227.62	-532.37	-1109.51	1.78	-1.32	-15.66	-163.92
6078.00	1.20	127.50	5919.80	95.00	1230.38	-535.16	-1111.10	4.50	-2.84	-105.16	-51.35
6172.00	1.90	105.70	6013.76	94.00	1228.90	-536.18	-1108.82	.96	.74	-23.19	-92.70
6267.00	1.90	100.30	6108.71	95.00	1226.59	-536.89	-1105.76	.19	.00	-5.68	-30.90
6361.00	2.30	94.50	6202.65	94.00	1223.83	-537.32	-1102.34	.48	.43	-6.17	24.41
6456.00	2.70	98.30	6297.56	95.00	1220.49	-537.79	-1098.23	.46	.42	4.00	93.35
6550.00	2.70	105.00	6391.45	94.00	1217.17	-538.68	-1093.90	.34	.00	7.13	-45.96

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
6645.00	3.10	97.80	6486.33	95.00	1213.53	-539.61	-1089.19	.57	.42	-7.58	3.79
Projection to Bit											
6768.00	3.80	98.50	6609.11	123.00	1207.69	-540.66	-1081.87	.57	.57	.57	4.03

WOLVERINE GAS & OIL CORPORATION

**KINGS MEADOW RANCHES #17-7
SE/NW SEC.17.T23S, R1W
SEVIER CO., UT**

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AUG 31 2005

DIV. OF OIL, GAS & MINING

GEOLOGIC REPORT
ON
KINGS MEADOW RANCHES #17-7
SE/NW SEC.17.T23S, R1W
SEVIER CO., UT
FOR
WOLVERINE GAS & OIL CORPORATION
ONE RIVER FRONT PLAZA
55 CAMPAU NW
GRAND RAPIDS, MI 49503-2616

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June 2005

Decollement Consulting, Inc
Roger D. Charbonneau, B.Sc.
Geologist

WELL DATA SUMMARY

WELL NAME	KINGS MEADOW RANCHES #17-7
OPERATOR	WOLVERINE GAS & OIL CORP
SURFACE LOCATION	SE/NW SEC.17.T23S, R1W SEVIER COUNTY, UT
API #	043 - 041- 30040
WELL CLASSIFICATION	DEVELOPMENT COVENANT FIELD
DRILLING CONTRACTOR	UNIT #111
ELEVATION - GROUND LEVEL KELLY BUSHING	5736' 5753'
SPUD DATE	06-01-05
SURFACE CASING	2005' OF 13 3/8"
INTERMEDIATE CASING	5955' OF 9 5/8"
PRODUCTION CASING	6810' OF 7"
HOLE SIZE	17 1/2'', 12 1/4'', 8 1/2
SAMPLE INTERVAL	2000 - 6810
GAS DETECTION	2000 - 6810
OPEN HOLE LOGS	GR, CAL, SP, HRI, CNL-FDL, DIP METER, EMRL
MUD TYPE	SATURATED SALT, FLOZAN
WELL STATUS	AWAITING COMPLETION

FORMATION TOPS**Kelly Bushing 5753'****Formation Prog.(tvd) Spl. Top (md) Spl. Top(tvd) Log Top(md) Log Top(tvd) Sub Sea****Arapien Surface**

Twin Creek	5663	5840	5682	5840	5682	71
Navajo	6073	6133	5974	6128	5969	-216

FORMATION EVALUATION**WOLVERINE GAS & OIL CORPORATION
KINGS MEADOW RANCHES #17-7
SE/NW SEC.17,T23S, R1W
SEVIER COUNTY, UT**

The Kings Meadow Ranch #17-7 was the eighth well drilled in the Covenant Field. Decollement Consulting began sample coverage at 2000' on Unit Rig #111, June 8, 2005. Crews collected 30' lagged samples to total depth (6810'). Surface casing was set at 2005' (13 3/8") and 12 1/4" hole drilled to 5955'. Intermediate casing (9 5/8") was set at 5945' and production casing (7") ran to total depth (6810'). A full suite of E-logs was run including Dip Meter and EMRL. Gas Detection was ran from 2005' to 6810'.

Navajo Sandstone 6128' MD log 5969' TVD Log -216 Sub Sea

The Navajo Sandstone was white, clear, quartzose, light red, very fine (lower) to medium (upper) grained, sub angular to rounded, fair to poor sorted friable, 70-98% unconsolidated, brown oil stain, strong hydrocarbon odor, rainbows on wash water, yellow white oil fluorescence, yellow while milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity,

Conclusion: Oil saturated reservoir - Awaiting completion.

BIT RECORD

WELL NAME	KINGS MEADOW RANCHES #17-7
LOCATION	SE/NW SEC. 17, T23S, R1W
SURFACE CASING	2005' OF 13 3/8"
SPUD DATE	6-01-05
TD DATE	6-22-05

BIT	1	2	3	4	5
SIZE	17 ½	12 ¼	12 ¼	12 ¼	8 ½
MAKE	STC	DPI	RTC	RTC	SEC
TYPE	XRTVC	MP4SLT	HP43A	HP53A	X53OS
SERIAL #	MR5456	2016094	B73541	PB4484	106649
JETS	3X28	6X18	3X24	3X24	3X11
OUT @	2003	3306	4646	5955	6810
FOOTAGE	1585	1721	1340	1309	855
HOURS	112 ½	63 ½	56 ½	69	26 ½
WT	45	40	40	45	35
RPM	0/35	0/31	0/30	0/30	0/35
PP	1960	2060	1850	1900	1400
MUD WT	9.6	10.1	10.2	10.5	8.5
VIS	39	33	34	33	34

DAILY DRILLING SUMMARY

DATE	DEPTH	PROG.	HRS	MUD	VIS	WL	PH	ACTIVITY
6-1-05	120	NIL	NIL	9.1	30	NC	10.5	RIG UP, SPUD
6-2-05	661	461	21	9.5	30	NC	10.0	DRILL
6-3-05	1063	402	23 ½	9.7	32	NC	9.5	DRILL
6-4-05	1361	293	23	9.7	33	NC	10.5	DRILL, POOH, MWD
6-5-05	1585	224	16	9.5	33	NC	10.0	RIH, DRILL
6-6-05	1809	224	17 ½	9.7	35	NC	9.5	Drill, Trip MWD, Drill
6-7-05	2003	194	16	9.8	35	NC	9.0	DRILL, POOH, Run 13 3/8"
6-8-05	2003	NIL	NIL	9.6	34	NC	9.5	Cement, nipple up, Press test
6-9-05	2003	NIL	NIL	9.5	33	NC	10.0	Wait on parts, test B.O.P.
6-10-05	2294	291	16 ½	9.2	33	NC	10.5	RIH, DRILL
6-11-05	2859	565	23	9.5	31	NC	10.5	DRILL
6-12-05	3300	441	23 ½	9.7	30	NC	10.0	DRILL
6-13-05	3684	384	13 ½	9.8	30	NC	9.5	DRILL, Trip bit, DRILL
6-14-05	4030	346	14 ½	10.0	34	NC	9.0	DRILL, PUMP REPAIR
6-15-05	4502	472	22	10.1	34	NC	9.5	DRILL
6-16-05	4785	283	15	10.1	33	NC	10.5	DRILL, TRIP BIT
6-17-05	5302	517	23	10.3	34	NC	10.5	DRILL
6-18-05	5762	460	20 ½	10.4	35	NC	10.0	DRILL, Work on pump
6-19-05	5955	193	12	10.5	33	NC	10.5	DRILL, POOH, Run 9 5/8"
6-20-05	5961	6	½	8.4	30	9.0	9.0	PRESS TEST, DRILL
6-21-05	6718	757	23 ½	8.4	32	9.0	9.5	DRILL
6-22-05	6810	92	2 ½	8.5	34	8.5	9.0	DRILL, POOH LOGS
6-23-05	6810	NIL	NIL	8.5	34	9.0	9.0	LOGGING

DEVIATION SURVEYS

DEPTH	INCLINATION	DIRECTION
160.00	.30	178.30
255.00	.50	98.20
345.00	.70	136.50
436.00	.80	219.80
496.00	1.60	239.5
557.00	2.90	232.10
649.00	4.00	280.50
741.00	6.00	271.30
835.00	6.70	267.70
925.00	6.50	256.20
1017.00	5.40	241.90
1112.00	5.20	227.50
1207.00	5.40	234.80
1309.00	6.20	258.50
1404.00	7.50	245.10
1498.00	7.90	241.10
1592.00	6.90	238.40
1687.00	9.60	237.70
1781.00	12.40	244.20
1844.00	13.60	246.50
2033.00	14.60	241.40
2033.00	14.60	241.40
2128.00	15.20	243.00
2222.00	14.30	242.10
2316.00	15.20	243.40
2411.00	15.60	243.50

DEPTH	INCLINATION	DIRECTION
2505.00	15.60	245.30
2600.00	16.40	246.20
2694.00	17.70	245.10
2789.00	18.40	246.90
2883.00	17.50	247.60
2978.00	16.70	247.10
3071.00	16.40	244.20
3071.00	16.40	244.20
3166.00	16.90	245.60
3262.00	16.50	244.10
3356.00	16.80	241.90
2451.00	18.50	241.80
2546.00	18.60	240.20
2640.00	17.60	242.70
3734.00	16.70	243.70
3829.00	16.20	245.60
3829.00	16.20	245.60
2923.00	15.20	247.80
4018.00	17.90	246.90
4111.00	17.10	239.70
4111.00	17.10	239.70
4206.00	16.00	238.30
4300.00	14.60	238.60
4395.00	14.40	242.70
4489.00	15.70	243.00
4584.00	14.40	242.30
4584.00	14.40	242.30
4678.00	13.90	246.40
4773.00	15.00	249.30
4867.00	15.20	250.90
4962.00	15.80	245.80

DEPTH	INCLINATION	DIRECTION
4962.00	15.80	246.80
5056.00	15.40	246.40
5151.00	14.70	248.10
5245.00	14.60	244.40
5340.00	14.10	245.10
5434.00	14.50	242.80
5529.00	14.70	237.00
5623.00	13.70	246.00
5718.00	11.00	241.90
5812.00	6.90	241.60
5907.00	4.90	239.30
5907.00	4.90	239.30
5983.00	3.90	227.40
6078.00	1.20	127.50
6172.00	1.90	105.70
6267.00	1.90	100.30

SAMPLE DESCRIPTIONS

Wolverine Gas & Oil Corporation Wolverine Federal #17-7 Kings Meadow Ranch

- 2000-30** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, abundant white, soft, chalky.
- 2030-60** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, abundant white, soft, chalky.
- 2060-90** **LIMESTONE 100%** White, soft, dolomitic, chalky, light gray, argillaceous, lithographic, mudstone.
- 2090-2120** **SHALE 40%** Red brown, silty, blocky, firm, blocky, slightly calcareous.
SILTSTONE 40% Light red brown, arenaceous, argillaceous, slightly calcareous.
LIMESTONE 20% Light to medium gray, argillaceous, lithographic, mud stone.
- 2120-50** **SHALE 10%** Red brown, silty, blocky, firm, blocky, slightly calcareous.
SILTSTONE 30% Light gray, white, chalky, anhydrite, blocky.
LIMESTONE 60 % Light to medium gray, argillaceous, lithographic, mudstone.
- 2150-80** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, silty in parts, chalky in part.
- 2180-2210** **LIMESTONE 90%** Light to medium gray, argillaceous, lithographic, mudstone, silty in parts, chalky in part.
ANHDRITE 10% White, soft to firm, chalky, silty.
- 2210-40** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, silty in part, chalky in part, abundant anhydrite fracture in fill.
- 2240-70** **SHALE 10%** Red brown, blocky, dolomitic, firm to hard.
LIMESTONE 90% Light to medium gray, argillaceous, lithographic, mudstone, abundant white sucrosic, anhydrite, fracture in fill.
- 2270-2300** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, abundant white, sucrosic anhydrite, fracture in fill.
- 2300-30** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, abundant white, sucrosic, anhydrite fracture in fill.
- 2330-60** **SILTSTONE 30%** White, light gray, arenaceous, argillaceous, anhydritic, firm, tight.
LIMESTONE 70% Light to medium gray, argillaceous, lithographic, mudstone.

- 2360-90** SILTSTONE 40% White, light gray, arenaceous, argillaceous, anhydrite, firm, tight.
LIMESTONE 60% Light to medium gray, argillaceous, lithographic, mudstone.
- 2390-2420** SILTSTONE 30% White, light gray, arenaceous, argillaceous, anhydritic, firm, tight.
LIMESTONE 70% Light to medium gray, argillaceous, lithographic, mudstone.
- 2420-50** LIMESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, pyritic, chalky in parts, abundant anhydrite fracture in fill.
- 2450-80** SHALE 70% Red brown, blocky, firm to hard, dolomitic, silty.
LIMESTONE 30% Light to medium gray, argillaceous, lithographic, mudstone, pyritic, chalky in part, abundant anhydrite fracture in fill.
- 2480-2510** SHALE 10% Red brown, blocky, firm to hard, dolomitic, silty.
LIMESTONE 90% Light to medium gray, argillaceous, lithographic, mudstone, pyritic, chalky in part, abundant anhydrite fracture in fill.
- 2510-40** LIMESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, chalky in part, anhydrite fracture in fill.
- 2540-70** SHALE 10% Red brown, blocky, dolomitic, silty, firm, salt casts.
LIMESTONE 90% Light to medium gray, argillaceous, lithographic, mudstone, chalky in part, anhydrite fracture in fill.
- 2570-2600** LIMESTONE 100% Medium to dark gray, argillaceous, lithographic, mudstone, firm to hard, crystalline in part.
- 2600-30** LIMESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, crystalline in part, 30% soft, chalky.
- 2630-60** LIMESTONE 100% Light to medium gray, argillaceous, lithographic, dense, mudstone.
- 2660-90** LIMESTONE 100% Light to medium gray, medium to dark gray, argillaceous, lithographic, mudstone, 30% soft, chalky.
- 2690-2720** LIMESTONE 40% Light to medium gray, medium to dark gray, argillaceous, lithographic, mudstone, 30% soft, chalky.
ANHYDRITE 60% White, crystalline, sucrosic texture in part, chalky texture in part, soft to firm.
- 2720-50** LIMESTONE 100% Light to medium gray, argillaceous, lithographic, crystalline, dense in part, mudstone, 10% soft, chalky.

- 2750-80 **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, crystalline, dense in part, mudstone, 10% soft, chalky, abundant white, chalky, anhydrite fracture in fill.
- 2780-2810 **LIMESTONE 60%** Light to medium gray, argillaceous, lithographic, crystalline, dense in part, mudstone, 10% soft, chalky, light to medium gray brown.
SILTSTONE 40% White, light gray, arenaceous, argillaceous, limy, firm.
- 2810-40 **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, crystalline, dense in part, mudstone, 10% soft, chalky, light to medium gray brown.
- 2840-70 **LIMESTONE 50%** Light to medium gray, argillaceous, lithographic, mudstone, pyritic.
SILTSTONE 10% Light gray, arenaceous argillaceous, limy.
ANHYDRITE 40% White, sucrosic, crystalline, chalky.
- 2870-2900 **SHALE 10%** Red brown, dark red, blocky, dolomitic, silty.
LIMESTONE 50% Light to medium gray, argillaceous, lithographic, mudstone, pyritic.
SILTSTONE 10% Light gray, arenaceous argillaceous, limy.
ANHYDRITE 30% White, sucrosic, crystalline, chalky.
- 2900-30 **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, crystalline, dense in part.
- 2930-60 **SHALE 20%** Red brown, red orange, floating quartz grains, soft to firm, blocky, firm, dolomitic.
SILTSTONE 10% Red brown, arenaceous, argillaceous, dolomitic, firm.
SANDSTONE 50% White, clear, red orange, fine to medium grained, sub angular to rounded, fair to well sorted, unconsolidated.
LIMESTONE 20% Light to medium gray, argillaceous, lithographic, mudstone.
- 2960-90 **SHALE 20%** Red brown, red orange, floating quartz grains, soft to firm, blocky, firm, dolomitic.
SANDSTONE 50% White, clear, red orange, fine to medium grained, sub angular to rounded, fair to well sorted, unconsolidated.
LIMESTONE 30% Light to medium gray, argillaceous, lithographic, mudstone.
- 2990-3020 **SHALE 40%** Red brown, gray, blocky, firm, dolomitic, silty, sandy.
SILTSTONE 50% Light red orange, red brown, arenaceous, argillaceous, dolomitic.
LIMESTONE 10% Light to medium gray, argillaceous, lithographic, mudstone.
- 3020-50 **SHALE 20%** Red brown, gray, blocky, firm, dolomitic, silty, sandy.
SILTSTONE 10% Light red orange, red brown, arenaceous, argillaceous, dolomitic.
SANDSTONE 70% White, clear, quartzose, light red, fine to medium grained, sub angular to rounded, fair to poorly sorted.

- 3050-80** LESTONE 100% Light to medium gray, white, argillaceous, lithographic, chalky, mudstone, abundant anhydrite fracture in fill.
- 3080-3110** LESTONE 100% Light to medium gray, white, argillaceous, lithographic, chalky, mudstone, abundant anhydrite fracture in fill.
- 3110-40** SHALE 10% Red brown, blocky, dolomitic, firm.
LESTONE 90% Light to medium gray, lithographic, mudstone.
- 3140-70** LESTONE 100% Light to medium gray, white, argillaceous, lithographic, mudstone, 20% soft, chalky.
- 3170-3200** LESTONE 70% Light to medium gray, white, argillaceous, lithographic, mudstone, 20% soft, chalky.
SILTSTONE 30% Red brown, arenaceous, dolomitic, blocky, firm to hard.
- 3200-30** LESTONE 90% Light to medium gray, white, argillaceous, lithographic, mudstone, 20% soft, chalky, tan, crystalline.
SILTSTONE 10% Red brown, arenaceous, dolomitic, blocky, firm to hard.
- 3230-60** SHALE 10% Red brown, blocky, dolomitic, firm to hard.
LESTONE 90% Light to medium gray, argillaceous, lithographic, mudstone.
- 3260-90** LESTONE 100% Light to medium gray brown, tan, crystalline, dense, lithographic, mudstone.
- 3290-3320** LESTONE 100% Light to medium gray brown, tan, crystalline, dense, lithographic, mudstone, abundant white, soft, chalky, abundant white, crystalline, anhydrite in fill.
- 3320-50** LESTONE 100% Light to medium gray brown, tan, crystalline, dense, lithographic, mudstone, abundant white, soft, chalky, abundant white, crystalline, anhydrite in fill.
- 3350-80** LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 10% soft, chalk, abundant anhydrite fracture fill, crystalline in part, firm to hard.
- 3380-3410** LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 10% soft, chalk, anhydrite fracture in fill.
- 3410-40** LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 10% soft, chalky.
- 3440-70** LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 20% soft, chalky.

- 3470-3500 LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 30% soft, chalky.**
- 3500-30 LESTONE 100% Light to medium gray, light to medium gray brown, crystalline, argillaceous, earthy, lithographic, mudstone, 10% white, light gray, soft, chalky.**
- 3530-60 LESTONE 100% Light to medium gray, light to medium gray brown, tan, microcrystalline, dense, hard tight, lithographic, mudstone.**
- 3560-90 LESTONE 70% Light to medium gray, light to medium gray brown, tan, microcrystalline, dense, hard, tight, lithographic, mudstone.**
SILTSTONE 30% Light gray, white, arenaceous, soft and chalky in part, limy.
- 3590-3620 LESTONE 100% Light to medium gray, light to medium gray brown, tan, microcrystalline, dense, hard, tight, mudstone.**
- 3620-50 LESTONE 100% Light to medium gray, light to medium gray brown, crystalline, dense, hard, tight, lithographic, mudstone, 10% white, soft, chalky, abundant white, crystalline anhydrite.**
- 3650-80 LESTONE 80% Light to medium gray, light to medium gray brown, tan, microcrystalline, dense, hard, tight, lithographic, mudstone, pyritic in part.**
SILTSTONE 20% White, light gray, arenaceous, argillaceous, limy, blocky, firm, chalky in part.
- 3680-3710 LESTONE 100% Light to medium gray, light to medium gray brown, tan, microcrystalline, dense, hard, tight, lithographic, mudstone, pyritic in part, 10% white, soft, chalky.**
- 3710-40 LESTONE 100% Light to medium gray brown, medium to dark gray brown, crystalline, dense, lithographic, mudstone, light gray, white, soft, chalky, silty in part.**
- 3740-70 LESTONE 100% Light to medium gray brown, medium to dark gray brown, crystalline, dense, lithographic, mudstone, light gray, white, soft, chalky, silty in part, 30% white, light gray, soft, chalky, silty.**
- 3770-3800 LESTONE 100% Light to medium gray brown, medium to dark gray brown, crystalline, dense, lithographic, mudstone, light gray, white, soft, chalky, silty in part, 20% white, light gray, soft to firm, chalky, silty.**
- 3800-30 LESTONE 100% Light to medium gray brown, medium to dark gray brown, crystalline, dense, lithographic, mudstone, light gray, white, soft, chalky, silty in part, 20% white, light gray, soft, chalky, silty.**

- 3830-60** SHALE 10% Red brown, blocky, dolomitic, silty in part, firm.
SILTSTONE 20% White, light gray, arenaceous, limy, anhydritic, chalky in part.
LIMESTONE 70% Light to medium gray, argillaceous, lithographic, mudstone.
- 3860-90** SHALE 10% Red brown, blocky, dolomitic, silty in part, firm, abundant salt casts, potash.
LIMESTONE 50% Light to medium gray, argillaceous, lithographic, mudstone.
SILTSTONE 20% Light gray, white, red brown, dolomitic, argillaceous, anhydritic.
- 3890-3920** SHALE 20% Red brown, blocky, dolomitic, silty in part, firm, abundant salt casts, potash.
LIMESTONE 50% Light to medium gray, argillaceous, lithographic, mudstone.
SILTSTONE 30% Light gray, white, red brown, dolomitic, argillaceous, anhydritic.
- 3920-50** SHALE 10% Red brown, blocky, dolomitic, firm, silty.
SILTSTONE 10% White, arenaceous, argillaceous, limy, anhydritic.
LIMESTONE 80% Light to medium gray brown, mottled, very fine to microcrystalline, dense, sucrosic texture in part, argillaceous, lithographic, mudstone.
- 3950-80** SILTSTONE 10% White, light gray, arenaceous, dolomitic, limy.
LIMESTONE 90% Light to medium gray brown, crystalline, dense, lithographic, mudstone.
- 3980-4010** LIMESTONE 100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 20% light gray, white, chalky, soft, silty.
- 4010-40** SILTSTONE 20% White, light red brown, arenaceous, argillaceous, blocky, dolomitic, anhydritic.
LIMESTONE 80% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 20% light gray, white, chalky, soft, silty, abundant anhydrite fracture in fill.
- 4040-70** LIMESTONE 100% Light to medium gray brown, argillaceous, crystalline, dense, lithographic, mudstone, 10% white, soft, chalky, silty.
- 4070-4100** LIMESTONE 100% Light to medium gray brown, crystalline, dense, argillaceous, lithographic, mudstone, 10% white, soft, chalky, silty.
- 4100-30** LIMESTONE 100% Light to medium gray brown, crystalline, dense, argillaceous, lithographic, mudstone, 30% white, light gray, soft, chalky, silty.
- 4130-60** LIMESTONE 100% Light to medium gray brown, crystalline, dense, argillaceous, lithographic, mudstone, 20% soft.

- 4160-90** Limestone 100% Light to medium gray brown, crystalline, dense, argillaceous, lithographic, mudstone, 10% soft, abundant white, crystalline, sucrosic, anhydrite fracture fill.
- 4190-4220** Limestone 100% Light to medium gray brown, crystalline, dense, argillaceous, lithographic, mudstone, 30% soft, abundant, anhydrite.
- 4220-50** Limestone 100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10% white, soft chalky, silty, abundant white, sucrosic, crystalline, anhydrite fracture in fill.
- 4250-80** Limestone 90% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10% white, soft chalky,
- 4280-4310** Limestone 60% Light to medium gray, tan, crystalline, dense, lithographic, mudstone.
Siltstone 30% Light gray, argillaceous, limy, blocky, firm.
Shale 10% Red brown, silty, dolomitic, firm, blocky.
- 4310-40** Limestone 70% Light to medium gray, tan, crystalline, dense, lithographic, mudstone.
Siltstone 20% Light gray, argillaceous, limy, blocky, firm.
Shale 10% Red brown, silty, dolomitic, firm, blocky.
- 4340-70** Limestone 60% Light to medium gray, tan, crystalline, dense, lithographic, mudstone.
Siltstone 30% Light gray, argillaceous, limy, blocky, firm.
Shale 10% Red brown, silty, dolomitic, firm, blocky.
- 4370-4400** Limestone 100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10% white, soft, chalky, abundant white, chalky, crystalline, anhydrite fracture in fill.
- 4400-30** Shale 10% Red brown, blocky, dolomitic, silty, salt dissolution casts.
Limestone 90% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10% white, soft, chalky, abundant white, chalky, crystalline, anhydrite fracture in fill, 10% soft.
- 4430-60** Shale 10% Red brown, blocky, dolomitic, silty, salt dissolution casts.
Limestone 90% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10% white, soft, chalky, abundant white, chalky, crystalline, anhydrite fracture in fill, 10% soft.
- 4460-90** Limestone 100% Light to medium gray, crystalline, dense, lithographic, mudstone, 30% white, soft, chalky, silty.

- 4490-4520 LESTONE 100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10% white, soft, chalky, abundant anhydrite fracture in fill.**
- 4520-50 LESTONE 100% Medium to dark gray brown, dense, crystalline, lithographic, mudstone.**
- 4550-80 LESTONE 100% Medium to dark gray brown, dense, crystalline, lithographic, mudstone, 10% white, soft, chalky, silty, abundant anhydrite fracture fill.**
- 4580-4610 LESTONE 100% Medium to dark gray brown, dense, crystalline, lithographic, mudstone, 10% white, soft, chalky, silty, abundant anhydrite fracture fill.**
- 4610-40 LESTONE 100% Medium to dark gray brown, crystalline, hard, dense, lithographic, mudstone, 10% white, light gray, chalky, silty, soft.**
- 4640-70 LESTONE 100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant, white, sucrosic, anhydrite fracture in fill.**
- 4670-4700 LESTONE 100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant, white, sucrosic, anhydrite fracture in fill, 10% soft, chalky.**
- 4700-30 LESTONE 100% Light to medium gray brown, mottled, crystalline, dense, lithographic, mudstone, 20% white, soft chalky, abundant, sucrosic, anhydrite fracture in fill.**
- 4730-60 LESTONE 100% Light to medium gray brown, mottled, crystalline, dense, lithographic, mudstone, 20% white, soft chalky, abundant, sucrosic, anhydrite fracture fill.**
- 4760-90 LESTONE 100% Light to medium gray, tan, crystalline, argillaceous, lithographic, mudstone 10% white, chalky, soft, anhydrite fracture fill.**
- 4790-4870 LESTONE 100% Light to medium gray, tan, crystalline, argillaceous, lithographic, mudstone 10% white, chalky, soft, anhydrite fracture fill.**
- 4820-50 SILTSTONE 30% White, arenaceous, blocky, firm, anhydritic.
LESTONE 70% Light to medium gray, tan, crystalline, argillaceous, lithographic, mudstone 10% white, chalky, soft, anhydrite fracture fill.**
- 4850-80 LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 30% white, soft chalky.**
- 4880-4910 LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, 40% soft, chalky, silty.**

- 4910-40** **LIMESTONE 100%** Light to medium gray brown, crystalline, dense, lithographic, mudstone, 30 % white, soft, chalky.
- 4940-70** **LIMESTONE 90%** Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10 % soft, chalky.
- 4970-5000** **LIMESTONE 100%** Light to medium gray brown, crystalline, dense, lithographic, mudstone, 10 % soft, chalky, abundant anhydrite fracture fill.
- 5000-30** **LIMESTONE 100%** Light to medium gray brown, crystalline, dense, argillaceous, firm to hard, lithographic, mudstone, abundant white, crystalline, sucrosic, anhydrite fracture in fill.
- 5030-60** **LIMESTONE 80%** Light to medium gray brown, , crystalline, dense, lithographic, mudstone, mottled in part.
ANHDRITE 20 % White, chalky, soft, clear, crystalline, translucent.
- 5060-90** **LIMESTONE 80%** Light to medium gray brown, crystalline, dense, lithographic, mudstone, white, soft, chalky, 70 % .
SILTSTONE 10% White, light gray, argillaceous, calcareous, firm, blocky.
ANHDRITE 10 % White, soft, chalky.
- 5090-5120** **LIMESTONE 100%** Light to medium gray, argillaceous, lithographic, mudstone, silty, 40 % white soft, chalky.
- 5120-50** **LIMESTONE 100%** Light to medium gray, argillaceous, soft to firm, lithographic, mudstone, 60 % white, soft, chalky.
- 5150-80** **LIMESTONE 100%** Light to medium gray, argillaceous, soft to firm, lithographic, mudstone, 40 % soft, earthy, chalky.
- 5180-5210** **LIMESTONE 100%** Light to medium gray, light to medium gray brown, soft to firm in part, firm to hard, crystalline in part, mudstone, 30 % white, soft, earthy, chalky.
- 5210-40** **LIMESTONE 100%** Light to medium gray brown, firm to hard, crystalline, dense, mudstone, 70 % white, soft, chalky, earthy.
- 5240-70** **LIMESTONE 90%** Light to medium gray brown, firm to hard, crystalline, dense, mudstone, 70 % white, soft, chalky, earthy.
SILTSTONE 10% Red brown, arenaceous, argillaceous, slightly calcareous, blocky, firm, abundant salt casts.

- 5270-5300** LESTONE 70% Light to medium gray brown, firm to hard, crystalline, dense, mudstone, 70% white, soft, chalky, earthy.
ANHYDRITE 30% White, soft, chalky, crystalline in part.
- 5300-30** LESTONE 90% Light to medium gray, earthy, argillaceous, mudstone, soft to firm, 50% white, soft, chalky, silty.
ANHYDRITE 10% White, soft, chalky.
- 5330-60** SHALE 10% Red brown, dark red, silty, blocky, salt casts.
LESTONE 80% Light to medium gray, earthy, soft to firm, argillaceous, lithographic, mudstone, 30% white, soft, chalky.
ANHYDRITE 10% White, soft, chalky.
- 5360-90** LESTONE 100% Light to medium gray, earthy, soft to firm, argillaceous, lithographic, mudstone, 70% white, soft, chalky, silty.
- 5390-5420** LESTONE 80% Light to medium gray, earthy, soft to firm, argillaceous, lithographic, mudstone, 70% white, soft, chalky, silty.
ANHYDRITE 20% White, chalky, soft.
- 5420-50** LESTONE 70% Medium to dark gray, soft to firm, argillaceous, earthy, lithographic, mudstone, silty in part.
ANHYDRITE 30% White, soft, chalky.
- 5450-80** LESTONE 80% Light to medium gray, very fine to fine crystalline, sucrosic texture in part, argillaceous, lithographic, mudstone.
ANHYDRITE 20% White, soft, chalky.
- 5480-5512** LESTONE 80% Light to medium gray, very fine to fine crystalline, sucrosic texture in part, argillaceous, lithographic, mudstone.
ANHYDRITE 20% White, soft, chalky.
- 5510-40** LESTONE 70% Light to medium gray, very fine to fine crystalline, sucrosic texture in part, argillaceous, lithographic, mudstone.
ANHYDRITE 30% White, soft, chalky.
- 5540-70** SHALE 10% Red brown, blocky, silty, limy.
LESTONE 70% Light to medium gray, very fine to fine crystalline, sucrosic texture in part, argillaceous, lithographic, mudstone.
ANHYDRITE 20% White, soft, chalky.

- 5570-5600** SHALE 40% Light gray, gray, blocky, waxy, slightly calcareous, greasy texture.
 LIMESTONE 30% Light to medium gray, very fine to fine crystalline, sucrosic texture in part, argillaceous, lithographic, mudstone.
 ANHYDRITE 30% White, soft, chalky.
- 5600-30** SHALE 30% Red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 50% Light to medium gray, argillaceous, lithographic, mudstone
 ANHYDRITE 20% white, chalky, soft.
- 5630-60** SHALE 30% Red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 30% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 30% White, chalky, soft.
- 5660-90** SHALE 30% Red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 50% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 20% White, chalky, soft.
- 5690-5720** SHALE 50% Light to medium gray, firm, marly, dolomitic, smooth, greasy texture, red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 20% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 30% White, soft, chalky.
- 5720-50** SHALE 60% Light to medium gray, firm, marly, dolomitic, smooth, greasy texture, red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 30% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 10% White, soft, chalky.
- 5750-80** SHALE 70% Light to medium gray, firm, marly, dolomitic, smooth, greasy texture, red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 20% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 10% White, soft, chalky.
- 5780-5810** SHALE 50% Light to medium gray, firm, marly, dolomitic, smooth, greasy texture, red brown, silty, blocky, dolomitic, light gray, gray, blocky, greasy texture.
 LIMESTONE 10% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 20% White, soft, chalky.
- 5810-40** SHALE 80% Light to medium gray, dolomitic, smooth, greasy texture, red brown, silty, blocky, firm.
 LIMESTONE 10% Light to medium gray, argillaceous, lithographic, mudstone.
 ANHYDRITE 10% White, soft, chalky.

- 5840-70** LESTONE 100% Light to medium gray, argillaceous, lithographic, mudstone, tan, microcrystalline, dense, hard, tight, mudstone.
- 5870-5900** LESTONE 100% Light gray brown, tan, microcrystalline, dense, hard, mudstone.
- 5900-30** LESTONE 100% Light gray brown, light brown, tan, mottled, oolitic, tight, crystalline matrix, packstone to grainstone, mudstone matrix.
- 5930-55** LESTONE 100% Light gray brown, light brown, tan, mottled, oolitic, tight, crystalline matrix, packstone to grainstone, mudstone, matrix.
- 5955-90** LESTONE 100% Medium to dark gray, argillaceous, lithographic, mudstone, light to medium gray, silty, soft to firm, chalky 30%.
- 5990-6020** LESTONE 100% Medium to dark gray, argillaceous, lithographic, mudstone, light to medium gray, silty, soft to firm, chalky 30%, 10% light gray, chalky, firm, mudstone, silty.
- 6020-50** LESTONE 100% Medium to dark gray, argillaceous, crystalline, lithographic, mudstone, 10% light gray, soft to firm, chalky mudstone.
- 6050-6080** LESTONE 10% Medium to dark gray, argillaceous, crystalline, lithographic, mudstone, 10% light gray, soft to firm, chalky mudstone, light to medium gray brown, light brown, tan, mottled, packstone to grainstone, oolitic, mudstone matrix, very fine to fine crystalline in parts, sucrose texture in part, tight, no show, 70%.
- 6080-6110** LESTONE 100% Light brown, mottled, oolitic, very fine to fine crystalline in part, packstone to grainstone, mudstone matrix, tight, no show.
- 6110-40** LESTONE 10% Light brown, mottled, oolitic, very fine to fine crystalline in part, packstone to grainstone, mudstone matrix, tight, no show.
SANDSTONE 90% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6140-70** SANDSTONE 100% White, clear, quartzose, light brown, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 70% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.

- 6170-6200** SANDSTONE 100% White, clear, light red orange, quartzose, very fine to medium grained, light brown, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 95% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6200-30** SANDSTONE 100% White, clear, light red orange, very fine to medium grained, quartzose, light brown, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 90% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6230-60** SANDSTONE 100% White, clear, light red orange, very fine to medium grained, quartzose, light brown, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6260-90** SANDSTONE 100% White, clear, light red orange, very fine to medium grained, quartzose, light brown, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 95% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6290-6320** SANDSTONE 100% White, clear, light red orange, very fine to medium grained, quartzose, light brown, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 95% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6320-50** SANDSTONE 100% White, clear, light red orange, very fine to medium grained, quartzose, light brown, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 95% unconsolidated, strong hydrocarbon odor, brown oil stain, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6350-80** SHALE 20% Light gray green, waxy, silty, greasy texture, smooth, red brown, silty, dolomitic, firm.
SILTSTONE 80% Red brown, dark red, arenaceous, argillaceous, dolomitic, firm to hard, mottled in part, pink

- 6380-6410** SHALE 20% Light gray green, waxy, silty, greasy texture, smooth, red brown, silty, dolomitic, firm.
SILTSTONE 80% Red brown, dark red, arenaceous, argillaceous, dolomitic, firm to hard, mottled in part, pink.
- 6410-40** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fine to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, brown oil stain on casts, odor, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring, 10-14% intergranular porosity.
- 6440-70** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 95% unconsolidated, brown oil stain on casts, odor, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold, residual ring cut, 10-14% intergranular porosity.
- 6470-6500** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 95% unconsolidated, brown oil stain on casts, odor, rainbows on wash water, yellow white oil fluorescence, yellow white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 6500-30** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, mixed zone, weak to no show.
- 6530-60** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, 10-14% intergranular porosity, no show.
- 6560-90** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, no show.
- 6590-6620** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, no show.
- 6620-50** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, no show.
- 6650-80** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, no show.

- 6680-6710** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, no show.
- 6710-40** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 98% unconsolidated, no show.
- 6740-70** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 85% unconsolidated, no show.
- 6770-6810** SANDSTONE 100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, friable, 70% unconsolidated, no show.

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Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL PLEASE!

September 6, 2005

Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Kings Meadow Ranches 17-7 well
Sec 17 T23S R01W
Sevier Co, UT
API# 43-041-30040
BLM Lease No. UTU-73528

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed our daily completion activity reports for the subject well. Wolverine's Grand Rapids, Michigan office will send final completion form(s). We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Chris Nicely
Engineering Technician

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Kings Meadow Ranches #17-7 well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

page 1 of 3

New Completion

7" 23# HCP110 @ 6810' TD
PBTB 6765' on 6/23/05; CBL TD 6690'
Perfs - 6258-6270, 6288-6300, 6311-6321
Perfs - 6335-6337, 6343-6345, 6348-6352
ESP set @ na
GL to RKB: 17'

"TIGHT HOLE"

08/16/05 **FIRST COMPLETION REPORT** - during July cleaned location, installed 11" 5m x 7-1/16" 5m tbg head with (2) 2-1/16" 5m gate valves w/ single valve tree, move in 4% KCL treating fluid and flowback tanks. Offload 2-7/8" 6.5ppf N80 EUE 8rd new tbg. MIRU Pool Well Service Unit @ 3pm from WF 17-6 (8-1). ND wellhead & flowline, NU 7-1/16" 5m BOP, set up pipe racks & load with tbg & strap. Note: CBL log run on 7/22/05 found good cement w/ TOC @ 4810', short marker jt @ 5971-5991. Plan: TIH w/ bit & scraper & pump pickle job. CMOL: DL Naylor

Est Daily Completion Cost	Completion AFE	\$	NA
Est Cumulative Comp Cost	Dryhole AFE	\$	NA
Est Dryhole Cost	Total Well Cost AFE	\$	NA
Est Total Well Cost to date			

08/17/05 Pick up 6-1/4" bit & 7" csg scraper on 2-7/8" tbg. Tag up @ 6760' kb with 220 jts, set tbg 15' off btm, close rams, RU Halco to tbg. Hold safety mtg, pump tubular cleanup job consisting of 15 bbls caustic wash, 12 bbls chemical wash, 15 bbl gel water, 10 bbl FW spacer, 7 bbl 7.5% HCL. Displace down tbg with 59 bbl. FW to surface, switch lines to csg, reverse hole with 245 bbl 4% KCL sending dirty acid water to pit. Hole clean after 145 bbls, RD Halco. RU swab, swabbed well down to 2500' fs, SWI & SDFN. Tomorrow's plan: POOH Perf & run tools CMOL: DL Naylor

Est Daily Completion Cost	Completion AFE	
Est Cumulative Comp Cost	Dryhole AFE	
Est Dryhole Cost	Total Well Cost AFE	
Est Total Well Cost to date		

8/18/05 POOH RU WellServ WLU. Perforated in two gun runs the (6) Upper Navajo 1 intervals listed below with 6 jpf (288 holes total) per Spectral Density - Dual Spaced Neutron log dated 22-Jun-2005. Used 4" slick gun, Titan 39 gm charges for .43" hole diam and 59" penetration, RD WLU. Make up 7" TS RBP,RT, SS, 7" HD packer & TIH, set plug @ 6445' pull up to 6190' RU WellServ WLU run CCL & correlate plug perfs & pkr. Leave pkr. swinging and SWI & SDFN. Tomorrow's plan: Swab each zone separately. CMOL: DL Naylor

(1)	Upr Navajo 1	6258-6270	12	4 jpf	48	90	.43	59"
(2)	Upr Navajo 1	6288-6300	12	4 jpf	48	90	.43	59"
(3)	Upr Navajo 1	6311-6321	10	4 jpf	40	90	.43	59"
(4)	Upr Navajo 1	6335-6337	2	4 jpf	8	90	.43	59"
(5)	Upr Navajo 1	6343-6345	2	4 jpf	8	90	.43	59"
(6)	Upr Navajo 1	6348-6352	4	4 jpf	16	90	.43	59"
	total	Gr 94/net42	42		168			

Est Daily Completion Cost
Est Cumulative Comp Cost

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Kings Meadow Ranches #17-7 well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

page 2 of 3

New Completion

7" 23# HCP110 @ 6810' TD
PBDT 6765' on 6/23/05; CBL TD 6690'
Perfs - 6258-6270, 6288-6300, 6311-6321
Perfs - 6335-6337, 6343-6345, 6348-6352
ESP set @ na
GL to RKB: 17'

"TIGHT HOLE"

8/19/05 100 psi. SIPP, TIH & set packer @ 6328, plug @ 6445, RU swab, fluid @ surface, made 5 swab runs and recovered 34 BLF, last 3 runs show oil, last sample 95% oil. EFL 5100'. Fill tubing w/30 bbl. 4% KCL water. Release packer, pull up & set plug @ 6328 & packer @ 6279. RU swab, made 7 swab runs and recovered 61 BLF, last two 95% oil. EFL 4500', pulling from 5000'. Left open to tank overnight, Started to flow @ 10pm. made 42 BO in 8 hrs. 5.25BPH. Plan: pull up & swab top zone.
CMOL: DL Naylor
Est Daily Completion Cost
Est Cumulative Comp Cost

8/20/05 Zero FTP, Reverse tubing volume, release tools, pull up set plug @ 6280, set packer @ 6226 RU swab, fluid @ surface, made 9 swab runs and recovered 79 BLF, last 3 runs 100% oil, EFL 3300'. Release pkr. reverse tubing volume, release tools, TIH, set plug @ 6445, set packer @ 6328 RU swab, made 4 swab runs and recovered 33 BLF, last run 100% oil, EFL 5100'. SWI SDFN
Plan: Acidize. CMOL: DL Naylor
Est Daily Completion Cost \$ [REDACTED]
Est Cumulative Comp Cost \$ [REDACTED]

8/21/05 SIPP 0, SIPP 100 psi. RU Halco, QC 7-1/2% acid mix @ 1.15 sg and 4% KCl @ 1.04 sg, OK. Hold safety mtg & test P&L to 6000 psi. Individually acidize each interval as follows:

#	Ft	Plan gals	Pmpd Gals	Break psi	BD bpm	ATR bpm	ATP psi	ISDP psi	5m psi	10m psi	15m psi	Comments
4	8	800	800	2730	2	4.2	2500	1750	860	560	400	Slight ball action
3	22	2200	2200	2500	1.2	4.2	2120	1750	750	468	320	Good ball action
2	12	1200	1200	2640	1.5	4	2200	1250	700	455	330	Some ball action
1	42	1900	1900	1750	2.2	4.2	1850	1400	635	435	320	No Balls

Release tools & set packer @ 6626 plug @ 6435, reverse out w/ 60bbl. 4% kcl water, RU to swab, made 17 swab runs, 1st oil cut on 1st run, 25%. Recovered 209 bbls fluid swabbing to tank. Last sample 95% oil. Left open to tank. SDFN. Well started flowing at 11pm, recovered 85 BO overnight in 8 hrs, avg 10.6 bphr. Will continue to cleanup. CMOL: DL Naylor
Est Daily Completion Cost \$ [REDACTED]
Est Cumulative Comp Cost \$ [REDACTED]

8/22/05 SDF Sunday, flowed well on open chk 23 hrs, recovered 270 BO, avg 11.7 bophr. **FIRST OIL SALES FROM KMR 17-7 TO HOLLY REFINERY ON 8/21/05.** Total production to date 644 BO, total sales to date 289 BO. Plan: Pull pkr & RBP, run packer & tree up. CMOL: SRHash
Est Daily Completion Cost \$ [REDACTED]
Est Cumulative Comp Cost \$ [REDACTED]

8/23/05 Reverse circ 213 bbls 4% KCl, last 100 bbls holding 200 psi BP, before well would quit flowing. Released pkr, TIH & latched RBP, POOH w/ tbg & LD tools. Picked up 6' x 2-7/8" N80 sub, 4' x 2-7/8" perf sub, 7" A1X pkr, 2' x 2-7/8" sub, 1 jt tbg, 2.31" X nipple & TIH w/ 201 jts 2-7/8" tbg (202 jts total). Set pkr @ 6206 & land EOT @ 6223. ND BOP & NU tree. Test annulus to 1000 psi. RU to swab, swabbed 91 bbls fluid in 8 runs, EFL 1500' fs, 90% oil, SDFN @ 9pm, well flowing to tank by 10pm, Recovered 60 BO swabbing and 94 BO overnight in 8 hrs flowing, avg 12 bophr. Will continue to flow well on test. Plan: RD & move to WF 17-5. CMOL: SRHash
Est Daily Completion Cost \$ [REDACTED] Est Cumulative Comp Cost \$ [REDACTED]

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Kings Meadow Ranches #17-7 well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

page 3 of 3

New Completion

7" 23# HCP110 @ 6810' TD
PBD 6765' on 6/23/05; CBL TD 6690'
Perfs - 6258-6270, 6288-6300, 6311-6321
Perfs - 6335-6337, 6343-6345, 6348-6352
ESP set @ na
GL to RKB: 17'

"TIGHT HOLE"

08/24/05 Flwd 285 BO and trace water in 24 hrs, FTP 0, chk open.
Total production to date 1083 BO; total sales to date 798 BO CMOL: SRHash Will continue to flow
and run ESP ~1week
Est Daily Completion Cost \$ [REDACTED] Est Cumulative Comp Cost \$ [REDACTED]

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Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

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September 19, 2005

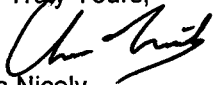
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Kings Meadow Ranches 17-7 well
Sec 17 T23S R01W
Sevier Co, UT
API# 43-041-30040
BLM Lease No. UTU-73528

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed our final daily completion activity reports for the subject well for August 24 through September 15, 2005. Wolverine's Grand Rapids, Michigan office will send final completion form(s). We respectfully request that the enclosed information remain confidential.

Very Truly Yours,


Chris Nicely
Engineering Technician

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Kings Meadow Ranches #17-7 well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

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New Completion

7" 23# HCP110 @ 6810' TD
PBDT 6765' on 6/23/05; CBL TD 6690'
Perfs - 6258-6270, 6288-6300, 6311-6321
Perfs - 6335-6337, 6343-6345, 6348-6352
ESP intake set @ 5157' md; 5015' tvd
GL to RKB: 17'

"TIGHT HOLE"

- 09/10/05 Flwd 247 BO allocated thru main bty in 23 hrs from 3pm 9/8 thru 2pm 9/9, FTP 20 psi on open chk
- 09/11/05 Flwd 297 BO allocated thru main bty in 24 hrs from 2pm 9/9 thru 2pm 9/10, FTP 20 psi on open chk
- 09/12/05 Flwd 227 BO allocated thru main bty in 24 hrs from 2pm 9/10 thru 2pm 9/11, FTP 20 psi on open chk
- 09/13/05 Flwd 200 BO allocated thru main bty in 17 hrs from 2pm 9/11 thru 7am 9/12. FTP 20 on open chk
RU Pool WSU, top kill well with 20 bbls KCl, ND tree & NU BOPE w/ annular & test. Release 7" Arrowset
pkr @ 6206', pump long way w/ 5 bbls, reverse tbg clean with 30 bbls KCl. Lay down 35 jts tbg & stand
back remaining 167 jts, lay down tools. RU Baker Centrilift to run ESP, pick up motor, seal & pump w/
2.25 SN & TIH banding #4 cable 3 bands per jt, splice feed thru and land btm of tbg @ 5173' md. ND
BOPE & NU wellhead. Complete tbg setting report to follow. Hook up flowlines, air supply & shutdowns.
Pump in operation and on test @ 7:00pm on a 24/64" chk, PTP 150 psi. This am Pmpd 468 bbls fluid in
14 hrs, 256 BO & 212 BLW. Sample this am 5% water, reduce to 14/64" chk, PTP 300 psi, pumping ARO
29 bphr.
- 09/14/05 Pmpd 188 bbls fluid to test tank in 7 hrs on a 14/64" to 12/64" chk, 350-400 psi PTP from 7am to 2pm
9/13/05. Running 52 hz pump speed, samples trace water; est production at 184 BO & 4 BLW

Production Tubing Setting - run in hole on 9/12/05

	Description	SN	Length	Top @ kb
1	4.00"od, 54hp, 1020v,35a,FMH motor	21F-0068746	10.73	5163 md
1	4.0"od, FSB3 DM SB SFS seal	31F-0071888	5.60	5157 md
1	4.0"od, type P8, model 400P, 147 stg pump w intake	01F-0007388	13.40	5144 md
1	2-3/8" x 2-7/8" EUE 8rd xover		.80	
1	2-7/8" EUE 8rd SN (2.25" min id)		1.10	5142 md
1	2-7/8" 6.5# N80 EUE 8rd handling sub		4.35	
167	2-7/8" 6.5# N-80 EUE 8rd tbg joints		5120.39	
	Overall		5156.37	
	Set below KB (GL to KB = 17')		+17.0	
	EOT set @ KB		5173.37	
	EOT 5173'kb md; intake @ 5157'kb md (5015' tvd)			
	Note: there is NO check or drain valve in this well			

- 09/15/05 Pmpd 667 bbls fluid to test tank in 24 hrs on 12/64" chk @ 550 psi PTP from 2pm 9/13 to 2pm 9/14;
running 51 hz. Samples trace water, estimate production at 647 BO & 20 BW; operating fluid level is
1388' fs, choke plugging occasionally. Total production to date 6314 BO, **TURNED WELL OVER TO
PRODUCTION @ 2pm 9/14/05 - FINAL COMPLETION REPORT - Thank you!**

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WV OF OIL, GAS & MINING

Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Kings Meadow Ranches #17-7 well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

page 3 of 4

New Completion

7" 23# HCP110 @ 6810' TD
PBTD 6765' on 6/23/05; CBL TD 6690'
Perfs - 6258-6270, 6288-6300, 6311-6321
Perfs - 6335-6337, 6343-6345, 6348-6352
ESP intake set @ 5157' md; 5015' tvd
GL to RKB: 17'

"TIGHT HOLE"

08/24/05 Flwd 285 BO and trace water in 24 hrs, FTP 0, chk open.
Total production to date 1083 BO; total sales to date 798 BO CMOL: SRHash Will continue to flow
and run ESP ~1week
Est Daily Completion Cost \$ 2000 Est Cumulative Comp Cost \$ 488,898

08/25/05 Flwd 269 BO and trace water in 24 hrs, FTP 0, chk open.

08/26/05 Flwd 270 BO and trace water in 24 hrs, FTP 0, chk open.

08/27/05 Flwd 268 BO and trace water in 24 hrs, FTP 0, chk open

08/28/05 Flwd 277 BO and trace water in 25 hrs, FTP 0, chk open
Total production to date 2167, total sales to date 1983 BO

08/29/05 Flwd 261 BO & trace water in 23 hrs on open chk, FTP 0 psi

08/30/05 Flwd 262 BO & trace water in 24 hrs on open chk, FTP 0 psi

08/31/05 Flwd 260 BO & trace water in 24 hrs on open chk, FTP 0 psi

09/01/05 Flwd 266 BO & trace water in 24 hrs on open chk from 2pm 8/30 to 2pm 8/31, FTP 0 psi

09/02/05 Flwd 259 BO & trace water in 24 hrs on open chk from 2pm 8/31 to 2pm 9/01, FTP 0 psi
Total production to date 3475 BO (less some water drawoff); Total frac tank sales from inception on
8/21/05 thru 2pm 9/1/05 is 2929 BO. Sales report turned over to production staff.

09/03/05 Flwd 289 BO & trace water in 26 hrs on open chk from 2pm 9/01 to 4pm 9/02, FTP 0 psi
Total production to date 3764 BO. Switched flow from frac tanks thru flowline to main battery.
Production now allocated daily based on well test

09/04/05 Flwd 233 BO allocated thru main bty in 22 hrs from 4pm 9/2 thru 2pm 9/3, FTP 20 psi on open chk

09/05/05 Flwd 259 BO allocated thru main bty in 24 hrs from 2pm 9/3 thru 2pm 9/4, FTP 20 psi on open chk
Shut well in at 2pm 9/4/05 for BHPBU

09/06/05 Well shut in 24 hrs for BHPBU from 2pm 9/4 to 2pm 9/5; SITP 400 psi in 24 hrs

09/07/05 Well shut in 24 hrs for BHPBU from 2pm 9/5 to 2pm 9/6; SITP 410 psi in 48 hrs

09/08/05 Well shut in 24 hrs for BHPBU from 2pm 9/6 to 2pm 9/7; SITP 420 psi in 72 hrs

09/09/05 Well shut in 25 hrs for BHPBU from 2pm 9/7 to 3pm 9/8; SITP 420 psi in 97 hrs; turn well on to main
battery @ 3pm 9/8/05.

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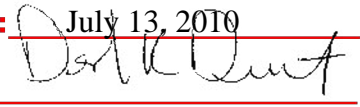
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due diligence, acquisitions, procedures, temporary personnel and field supervision

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DIVISION OF OIL & GAS

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE			
1. TYPE OF WELL Oil Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC		7. UNIT or CA AGREEMENT NAME: WOLVERINE			
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503		8. WELL NAME and NUMBER: KINGS MEADOW RANCHES 17-7			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680 FNL 2217 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 17 Township: 23.0S Range: 01.0W Meridian: S		9. API NUMBER: 43041300400000			
PHONE NUMBER: 616 458-1150 Ext		9. FIELD and POOL or WILDCAT: COVENANT			
COUNTY: SEVIER		STATE: UTAH			
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION	TYPE OF ACTION				
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 7/12/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input checked="" type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: Work-over </td> </tr> </table>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input checked="" type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: Work-over
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Wolverine Gas and Oil Company of Utah, LLC plan to undertake a work-over on the KMRI 17-7, which is part of the Covenant Field. Based on the analysis of the well, the existing perforations are under performing. Therefore, we intend to fracture stimulate through the existing perf interval at 6258-6270' MD. Based on the results of the frac treatment, we also intend to add new perforations in the Upper Navajo at 6132-6152' MD, 6165-6168' MD, 6182-6195' MD, 6207-6214' MD, and 6231-6246' MD. Once the work in completed, the well will be returned to production.					
NAME (PLEASE PRINT) Helene Bardolph		PHONE NUMBER 616 458-1150			
SIGNATURE N/A		TITLE Engineering Administrative Assistant			
DATE 6/11/2010		DATE: July 13, 2010 By: 			

RECEIVED June 11, 2010

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
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COUNTY: SEVIER		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input checked="" type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/4/2010			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Kings Meadow Ranches 17-7 was successfully fracture stimulated through the existing perforation interval at 6258' – 6270' and a total of 47,900 lbs of 20/40 Intermediate Strength Proppant (ISP) were placed into the formation. Prior to pumping the fracture treatment a Differential Fracture Injection Test (DFIT) was pumped with 3780 gallons of 2% KCL completion fluid at a rate of 5 BPM and an average pressure of 3211 psi. During the fracture treatment a maximum rate of 25.3 BPM and 4,068 psi was reached during which time 57,093 gallons of fluid were pumped down the wellbore. ESP equipment was rerun, and the well returned to production.

NAME (PLEASE PRINT) Helene Bardolph	PHONE NUMBER 616 458-1150	TITLE Engineering Administrative Assistant
SIGNATURE N/A	DATE 12/1/2010	